

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Ahmed M. Farah Examiner #: 77541 Date: 01/06/03
 Art Unit: 3739 Phone Number 305-5783 Serial Number: 09/820,832
 Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Method and Apparatus for Presbyopia Correction Using UV and IR Lasers.

Inventors (please provide full names): Dr. J. T. Lin

Earliest Priority Filing Date: 05/03/1999

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Ophthalmic surgery method for correcting
 presbyopia, where in the movement of the ciliary
 body is provided by increase of the flexibility
 of laser ablated sclera tissue, which is
 filled in by sub-conjunctival tissue. See claim 1.

STAFF USE ONLY

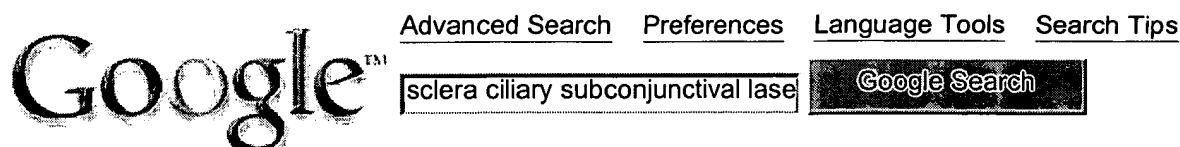
Searcher: Julie Waller
 Searcher Phone #: 305-8587
 Searcher Location: CP2-2408
 Date Searcher Picked Up: 1/8/03
 Date Completed: 1/8/03
 Searcher Prep & Review Time: 54m
 Clerical Prep Time: _____
 Online Time: 31m

Type of Search

NA Sequence (#) _____
 AA Sequence (#) _____
 Structure (#) _____
 Bibliographic ☒
 Litigation _____
 Fulltext ☒
 Patent Family _____
 Other _____

Vendors and cost where applicable

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 Questel/Orbit _____
 Dr.Link _____
 Lexis/Nexis _____
 Sequence Systems _____
 WWW/Internet _____
 Other (specify) ref 1, 2, 3



Web - Images - Groups - Directory - News-New!

Searched the web for **sclera ciliary subconjunctival laser**. Results 1 - 10 of about 188. Search took 0.12 second

"Ophthalmic Laser Microendoscope Ciliary Process Ablation in the ...

... **Subconjunctival** methylprednisolone and gentamicin were given. ... The surgeon's other hand indents the **sclera**, pushing the **ciliary** processes into view in ...

www.endo-optiks.com/oplasnvg.htm - 30k - [Cached](#) - [Similar pages](#)

SRGT 1342 - Ophthalmic Surgery

... Zonules - ligaments radiating from the **ciliary** body to the ... of a drainage channel to the **subconjunctival** space for ... wedge of silicone or eye bank **sclera** epi- or ...

www.tcjc.cc.tx.us/campus_ne/faculty/braziel/s1342eye.html - 26k - [Cached](#) - [Similar pages](#)

[PDF]COFP AprJune text

File Format: PDF/Adobe Acrobat

... circulation in the **ciliary** body, choroid and **sclera**. ... unreactive pupil (Figure 4) 3.

Ciliary injection (Figure ... **LASER PERIPHERAL IRIDOTOMY** (Figure 6) This is the ...

www.cfps.org.sg/sfp/28/283/283_pg51.pdf - [Similar pages](#)

SRP, A New Procedure

... one to two weeks) 5. **subconjunctival** hemorrhage (two to ... Since the **ciliary** muscle is attached to the area of ... meshwork, outward expansion of the **sclera** over this ...

www.marmer2020.com/accomodation.htm - 24k - [Cached](#) - [Similar pages](#)

[PDF]Transciliary Filtration and Lymphatics of Conjunctiva-A Tale of ...

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... give a fresh start to Trans-**ciliary** filtration with ... diameter round pit was made in the **sclera**. ... conjunctival flap I always inject **subconjunctival** lignocaine so ...

www.isurgeon.org/pdf/article1.pdf - [Similar pages](#)

UNIVERSITY OF NORTH FLORIDA

... b) **sclera**- 2) Vascular Tunic a) iris- b) **ciliary** ... constrict the pupil and contract the **ciliary** muscle, increasing ... humor to flow into the **subconjunctival** spaces. ...

www.unf.edu/~lloriz/sensory.htm - 26k - [Cached](#) - [Similar pages](#)

Glaucoma Surgery

... dissection, scleral bed bleeding, **ciliary** block glaucoma ... materials have been used (donor **sclera** appears to ... into the sclerostomy, **subconjunctival** hemorrhage, and ...

www.medscape.com/viewarticle/420836 - 39k - [Cached](#) - [Similar pages](#)

Features, November 2000

... fibers arch toward the **sclera**, increasing tension ... to slacken, preventing the **ciliary** muscle from ... complications include transient **subconjunctival** hemorrhage and ...

www.revoptom.com/archive/features/ro1200f3compensation.htm - 18k - [Cached](#) - [Similar pages](#)

eMedicine - Melanoma, Ciliary Body : Article by Enrique Garcia- ...

... appear on examination as a small **subconjunctival** area of ... with in block removal of **ciliary** body, cornea ... the tumor, followed by grafting banked **sclera** and cornea ...

www.emedicine.com/oph/topic404.htm - 90k - [Cached](#) - [Similar pages](#)

Shiley Eye Center-Robert N. Weinreb, MD

... EP 1 , EP 2 , and FP receptor subtypes in human **sclera**. ... gene transcription in human **ciliary** muscle cells ... of 70-kDa dextran after **subconjunctival** injection in ...
eyesite.ucsd.edu/faculty/rweinreb.html - 66k - [Cached](#) - [Similar pages](#)

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sclera ciliary subconjunctival lase

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Web - Images - Groups - Directory - News-New!

Searched the web for **photocoagulation presbyopia**. Results 1 - 10 of about 974. Search took 0.20 seconds.

Your original search: photocoagulation presyopia returned **zero results**.

The alternate spelling: photocoagulation presbyopia returned the results below.

Learn about **presbyopia** from an eye specialist in your area

www.PresbyopiaDocShop.com **Presbyopia** Information? Click Here!

Sponsored Link

Procedures - Valley Eye Center, PA - laser eye surgery, senior ...

... Pan-Retinal **Photocoagulation**. Diabetic retinopathy does not usually ... not to regain lost vision. Pan-retinal **photocoagulation** is for those: ...

www.vecpa.com/index.cfm/procedures/panretinalphotocoagulation - 62k - Cached

- Similar pages

Procedures - Valley Eye Center, PA - laser eye surgery, senior ...

... Surgical Reversal of **Presbyopia** (SRP). ... Alternatives to SRP. SRP is not the only surgical procedure designed to correct **presbyopia**. ...

www.vecpa.com/index.cfm/procedures/surgicalreversalofpresbyopia - 65k - Cached - Similar pages

[More results from www.vecpa.com]

Laser Eye Surgery Refractive Eye Correction Site

... macular degeneration can be treated with photodynamic therapy, diabetic retinopathy

can be treated with laser **photocoagulation**, and **presbyopia** can be treated ...

www.lasereyesurgeryfyi.com/ - 62k - Cached - Similar pages

Eye Surgery for Glaucoma, Macular Degeneration, and Diabetic ...

... Laser **photocoagulation** involves the use of a laser to seal leaking blood vessels and/or slow the growth of abnormal blood vessels. ... **Presbyopia**.

...

www.lasereyesurgeryfyi.com/laser_eye_surgery_disease.html - 61k - Cached - Similar pages

Vision Loss Doctors FYI - Frequently Asked Questions about ...

... There are two types of treatment for diabetic retinopathy: laser **photocoagulation** and vitrectomy. Are there **presbyopia** treatments? ...

www.visionlossfyi.com/vision_loss_faqs.html - 61k - Cached - Similar pages

[PDF] OPTOMETRIC CLINICAL PRACTICE GUIDELINE CARE OF THE PATIENT WITH ...

File Format: PDF/Adobe Acrobat - View as HTML

OPTOMETRIC CLINICAL PRACTICE GUIDELINE CARE OF THE PATIENT WITH **PRESBYOPIA** Reference Guide for Clinicians Prepared by the American Optometric Association ...

www.aoanet.org/clincare/pdf/17.pdf - Similar pages

Vision Resource Center—Clarifying the Causes of Blurry Vision

... A yellowish tinge may also appear on objects, and **presbyopia** may temporarily ... be treated

Sponsored Links

Presbyopia Reversal

Get rid of reading glasses!
Free consultation

lapr.info

Interest:

Presbyopia and Surgery

Learn about presbyopia and options to help-Download our free info pack

www.2020eyesite.com

Interest:

Guide to Presbyopia

Learn about your options: no-line eyeglasses and bifocal contacts.

www.AllAboutVision.com

Interest:

Improve Vision Naturally

Powerful natural vision improvement

Designed by award winning doctors

www.seeclearlymethod.com

Interest:

See your message here...

with laser surgery (photodynamic therapy or **photocoagulation**) to seal ...

[www.hopkinsafter50.com/html/silos/vision/ haARTICLE_blurryvision.html](http://www.hopkinsafter50.com/html/silos/vision/haARTICLE_blurryvision.html) - 22k - [Cached](#) - [Similar pages](#)

Senior Eye Health - Midwest Eye Physicians - Palos Heights IL - ...

... **Presbyopia**. **Presbyopia** makes it difficult to focus on close objects. ... When this ability is lost, **presbyopia** results. Symptoms of **presbyopia**: ...

[www.midwesteyephysicians.com/index.cfm/ senioreye/presbyopia](http://www.midwesteyephysicians.com/index.cfm/senioreye/presbyopia) - 48k - [Cached](#) - [Similar pages](#)

PDF Vision Vision Vision

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Hyperopia Hyperopia Myopia Myopia **Presbyopia Presbyopia** Astigmatism Astigmatism ... surgery
Scleral buckling Scleral buckling **Photocoagulation Photocoagulation** ...

www2.msstate.edu/~glen/PDF/Eye.pdf - [Similar pages](#)

NeL Diabetes - complications > Retinopathy > Type 1 and Type 2 > ...

... Reduced accommodation. Early onset **presbyopia**. Ophthalmoplegia from pan-retinal **photocoagulation** scars disrupting nerve fibres; Cataracts: ...

[cebmh.warne.ox.ac.uk/diabetes/professional/ complications/retinopathy/detailed.html](http://cebmh.warne.ox.ac.uk/diabetes/professional/complications/retinopathy/detailed.html) - 38k - [Cached](#) - [Similar pages](#)

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photocoagulation presbyopia

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Inventor
Search

9/5/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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014614952 **Image available**
WPI Acc No: 2002-435656/200246
XRPX Acc No: N02-342931

Surgical apparatus for use in presbyopia correction comprises a beam spot controller, fiber delivery unit with tip, and a laser beam that includes UV lasers and infrared lasers

Patent Assignee: LIN J T (LINJ-I)

Inventor: LIN J T

Number of Countries: 091 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200236029	A1	20020510	WO 2001US24618	A	20010807	200246 B
AU 200181107	A	20020515	AU 200181107	A	20010807	200258

Priority Applications (No Type Date): US 2000706382 A 20001106

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200236029 A1 E 19 A61B-018/18

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200181107 A A61B-018/18 Based on patent WO 200236029

Abstract (Basic): WO 200236029 A1

NOVELTY - Apparatus comprises a beam spot controller (3), fiber delivery unit (4,5) and a fiber tip (6). The basic laser beam (1) includes UV lasers and infrared lasers having wavelength ranges of 0.15-0.36 microns and 0.5-3.2 microns and diode lasers of about 0.98, 1.5 and 1.9 microns. **Presbyopia** is treated by a system which uses an ablative laser (1) to ablate the sclera tissue in a predetermined patterns outside the limbus to increase the accommodation of the ciliary body of the eye.

USE - For **presbyopia** correction and eye disorders such as glaucoma and cataracts by laser removal of the sclera tissue.

DESCRIPTION OF DRAWING(S) - The drawing shows a surgical apparatus.

Laser beam (1)

Spot controller (3)

fiber delivery unit (4,5)

Tip (5)

pp; 19 DwgNo 1/3

Title Terms: SURGICAL; APPARATUS; **PRESBYOPIA** ; CORRECT; COMPRISE; BEAM;
SPOT; CONTROL; DELIVER; UNIT; TIP; LASER; BEAM; ULTRAVIOLET; LASER;
INFRARED; LASER

Derwent Class: P31; S05; U12; V08; X24

International Patent Class (Main): A61B-018/18

File Segment: EPI; EngPI

9/5/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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014394810 **Image available**
WPI Acc No: 2002-215513/200227
XRAM Acc No: C02-065783
XRPX Acc No: N02-165071

Method of performing corneal refractive surgery used in photorefractive keratectomy involves scanning laser in predetermined overlapping pattern onto number of positions on corneal surface to photoablate tissue

Patent Assignee: LIN J (LINJ-I)

Inventor: LIN J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010037105	A1	20011101	US 92985617	A	19921203	200227 B
			US 94218319	A	19940325	
			US 95489497	A	19950612	
			US 97961133	A	19971030	
			US 2001826843	A	20010406	

Priority Applications (No Type Date): US 95489497 A 19950612; US 92985617 A 19921203; US 94218319 A 19940325; US 97961133 A 19971030; US 2001826843 A 20010406

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20010037105	A1		10	A61B-018/20	CIP of application US 92985617 CIP of application US 94218319 Cont of application US 95489497 Cont of application US 97961133 CIP of patent US 5520679

Abstract (Basic): US 20010037105 A1

NOVELTY - Method of performing corneal refractive surgery by reshaping a portion of a corneal surface involves scanning a laser having pulsed output beam of predetermined ultraviolet wavelength and having an energy level less than 10 mJ/pulse in a predetermined overlapping pattern onto a number of positions on the corneal surface to photoablate the corneal tissue.

DETAILED DESCRIPTION - Method of performing corneal refractive surgery by reshaping a portion of the corneal surface comprises:

- (a) selecting a laser (10) having pulsed output beam of predetermined ultraviolet wavelength and having an energy level less than 10 mJ/pulse;
- (b) selecting a scanning mechanism (12) for scanning the selected laser output beam;
- (c) coupling the laser beam to the scanning mechanism for scanning the laser beam over a predetermined surface area;
- (d) focussing the scanning laser beam onto the corneal surface of a patient's eye to a predetermined spot size;
- (e) aligning the center of the scanning laser beam onto the corneal surface with a visible aiming beam; and
- (f) controlling the scanning mechanism to deliver the scanning laser beam in a predetermined overlapping pattern onto a number of positions on the corneal surface to photoablate the corneal tissue, whereby a patients' vision is corrected by reshaping the corneal surface.

USE - The method is used in photorefractive keratectomy, phototherapeutic keratectomy, intrastroma photokeratectomy and laser in situ keratomileusis for myopic, hyperopic, astigmatism and **presbyopic** corrections. The refractive laser system can be used in a mobile clinical center.

ADVANTAGE - The refractive laser system is low-cost, reduced in size and weight, has high reliability and is easy to operate and

maintain. The refractive laser system is compact, portable and insensitive to environmental conditions.

DESCRIPTION OF DRAWING(S) - The drawing shows a block-diagram of a computer-controlled laser system.

Laser (10)
Scanning mechanism (12)
Focussing optics (14)
Reflecting mirror (15)
Cornea (16)
Arming system (17)
Laser head (20)
Horizontal directions (21)
Vertical direction (22)
Computer controlled panel (23)
Wheels (24)

pp; 10 DwgNo 1/5

Title Terms: METHOD; PERFORMANCE; CORNEA; REFRACT; SURGICAL; SCAN; LASER;
PREDETERMINED; OVERLAP; PATTERN; NUMBER; POSITION; CORNEA; SURFACE;
TISSUE

Derwent Class: L03; P31; S05; V08

International Patent Class (Main): A61B-018/20

File Segment: CPI; EPI; EngPI

9/5/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014342814 **Image available**

WPI Acc No: 2002-163517/200221

Related WPI Acc No: 2002-096415

XRPX Acc No: N02-124819

Laser beam ophthalmic surgery for presbyopia treatment, involves causing movement of ciliary muscle and zonular fiber connected to corneal lens of eye

Patent Assignee: LIN J T (LINJ-I); SURGILIGHT INC (SURG-N)

Inventor: LIN J T ; COZEAN C

Number of Countries: 100 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010029363	A1	20011011	US 99303673	A	19990503	200221 B
			US 2001820832	A	20010330	
WO 200294129	A2	20021128	WO 2002US10069	A	20020329	200280

Priority Applications (No Type Date): US 2001820832 A 20010330; US 99303673 A 19990503

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20010029363	A1	7	A61B-018/18	CIP of application US 99303673
				CIP of patent US 6258082

WO 200294129 A2 E A61F-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA
ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20010029363 A1

NOVELTY - A portion of the scleral tissue (13) of an eye is ablated

*the
Patent*

in a predetermined pattern and area. The ablated gap is filled in by the subconjunctiva tissue, which causes the movement of ciliary mussel (14) and zonular fiber (15) connected to the corneal lens (12) of the eye, to increase the accommodation of **presbyopic** eye.

USE - For treatment of **presbyopia**.

ADVANTAGE - The sclera ablation increases the accommodation of the ciliary mussel by the increase of flexibility in the laser ablated sclera areas.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic drawing of anteroposterior section through anterior portion of human eye showing sclera, ciliary muscle, zonule and the lens.

Corneal lens (12)
Scleral tissue (13)
Ciliary mussel (14)
Zonular fiber (15)

pp; 7 DwgNo 1/3

Title Terms: LASER; BEAM; OPHTHALMIC; SURGICAL; **PRESBYOPIA** ; TREAT; CAUSE; MOVEMENT; CILIARY; MUSCLE; CONNECT; CORNEA; LENS; EYE

Derwent Class: P31; P32; S05

International Patent Class (Main): A61B-018/18; A61F-000/00

File Segment: EPI; EngPI

9/5/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014275716 **Image available**

WPI Acc No: 2002-096418/200213

Related WPI Acc No: 2001-521034

XRPX Acc No: N02-071177

Laser beam ophthalmological surgery method involves controlling scanning mechanism to deliver ablative laser beam pattern onto cornea to photoablate sclera tissue outside limbus

Patent Assignee: LIN J T (LINJ-I)

Inventor: **LIN J T**

Number of Countries: 094 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6263879	B1	20010724	US 98189609	A	19981110	200213 B
WO 200269828	A1	20020912	WO 2001US7047	A	20010306	200270 N

Priority Applications (No Type Date): US 98189609 A 19981110; WO 2001US7047 A 20010306

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 6263879	B1		8	A61B-019/00	
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WO 200269828	A1	E		A61B-019/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

Abstract (Basic): US 6263879 B1

NOVELTY - A scanning mechanism is controlled to deliver an ablative laser beam in a predetermined pattern on a predetermined area of the cornea to photoablate the sclera tissue outside the limbus, so that a **presbyopic** patient's vision is corrected by expansion of the sclera.

DETAILED DESCRIPTION - A pulse ablation laser having a pulsed output beam of predetermined wavelength and beam spot controller mechanism for reducing and focusing the selected laser beam onto a predetermined spot size on the surface of the cornea are selected. A scanning mechanism is selected for scanning the ablative laser output beam. The laser beam is coupled to a scanning device for scanning the ablative laser over a predetermined area of the corneal sclera. A metal mask having a slit is selected and positioned over the cornea surface for scanning the ablation laser over the mask, to control the ablation slit pattern on the sclera tissue outside the limbus.

USE - Used for the treatment of **presbyopia** and prevention of glaucoma using dual-beam scanning lasers.

ADVANTAGE - Provides the well defined laser parameters for efficient and accurate sclera expansion for **presbyopia** reversal and the treatment and preventing of open angle glaucoma. A scanning device enables controlling degree of ciliary muscle accommodation according to the location, size and shapes of the removed sclera tissue. The scanning device provides scanning patterns to cause effective sclera expansion.

DESCRIPTION OF DRAWING(S) - The figure shows the diagram of a possible ablation pattern to achieve **presbyopia** reversal.

pp; 8 DwgNo 4A/4

Title Terms: LASER; BEAM; OPHTHALMIC; SURGICAL; METHOD; CONTROL; SCAN; MECHANISM; DELIVER; ABLATE; LASER; BEAM; PATTERN; CORNEA; SCLERA; TISSUE
Derwent Class: P31; S05; V07; V08
International Patent Class (Main): A61B-019/00
File Segment: EPI; EngPI

9/5/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014275713 **Image available**

WPI Acc No: 2002-096415/200213

Related WPI Acc No: 2002-163517

XRPX Acc No: N02-071175

Refractive surgery performing method, involves using gas laser beam of specified wavelength for focusing on corneal surface as spot of specified diameter by scanning device

Patent Assignee: LIN J T (LINJ-I)

Inventor: LIN J T

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6258082	B1	20010710	US 99303673	A	19990503	200213 B

Priority Applications (No Type Date): US 99303673 A 19990503

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6258082	B1		10	A61B-018/18	

Abstract (Basic): US 6258082 B1

NOVELTY - A gas laser (1) generated by transverse electrical discharge in a mixture of gas having pulsed output beam of predetermined mid-infrared wavelength (2) of 2.7-3.2 microns, is selected and focused to a spot size of 0.05-2.5 mm on the corneal surface (6). The laser beam is coupled to a scanning device for scanning the beam over the corneal surface area to reshape corneal tissue for correcting vision.

DETAILED DESCRIPTION - The gas laser is generated by transverse

electrical discharge in a mixture of neutral gases including helium gas.

USE - In ophthalmic applications such as photorefractive keratectomy (PRK), phototherapeutic keratectomy (PTK), intrastroma photokeratectomy, laser assisted in situ keratomileusis (LASIK) for myopic, hyperopic, astigmatism and laser sclera expansion (LASE) for **presbyopia** correction.

ADVANTAGE - As the method is performed using mid-infrared wavelength and matching desired laser parameters, the method is performed easily at reduced cost. Improvement in **presbyopia** correction is achieved and refractive surgery is enabled, as refractive laser system offers smooth ablated corneal surface by appropriate beam overlapping and scanning pattern. Thermal effects and corneal hydration effects are reduced, by providing a gas blower to achieve tissue ablation rate.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of refractive laser system for performing refractive surgery.

Gas laser (1)

Mid-infrared wavelength (2)

Corneal surface (6)

pp; 10 DwgNo 1/7

Title Terms: REFRACT; SURGICAL; PERFORMANCE; METHOD; GAS; LASER; BEAM; SPECIFIED; WAVELENGTH; FOCUS; CORNEA; SURFACE; SPOT; SPECIFIED; DIAMETER; SCAN; DEVICE

Derwent Class: P31; S05; V07; V08

International Patent Class (Main): A61B-018/18

File Segment: EPI; EngPI

9/5/6 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014036821 **Image available**

WPI Acc No: 2001-521034/200157

Related WPI Acc No: 2002-096418

XRPX Acc No: N01-385954

Laser beam ophthalmic surgery method for treatment of presbyopia , involves removing portion of scleral tissue of eye and filling tissue gap with sub-conjunctival tissue

Patent Assignee: LIN J T (LINJ-I)

Inventor: LIN J T

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010016736	A1	20010823	US 98189609	A	19981110	200157 B
			US 2001794496	A	20010228	

Priority Applications (No Type Date): US 2001794496 A 20010228; US 98189609 A 19981110

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20010016736	A1	7	A61B-018/18	CIP of application US 98189609

Abstract (Basic): US 20010016736 A1

NOVELTY - A portion of the scleral tissue of an eye is removed by irradiating laser beam. The tissue gap formed is filled by a sub-conjunctival tissue. The sub-conjunctival tissue allows the ciliary body to contract and expand the zonular fiber which is connected to the lens of the eye, to increase accommodation of lens.

USE - For treatment of **presbyopia** using scanning and fiber-coupled lasers.

ADVANTAGE - The laser ablated sclera area becomes more flexible without weakening, thus accommodating lens efficiently.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of integrated laser system consisting of ablative laser coupled to corner by a reflection mirror and a scanning device.

pp; 7 DwgNo 1/3

Title Terms: LASER; BEAM; OPHTHALMIC; SURGICAL; METHOD; TREAT; **PRESBYOPIA**
; REMOVE; PORTION; SCLERAL; TISSUE; EYE; FILL; TISSUE; GAP; SUB;
CONJUNCTIVA; TISSUE

Derwent Class: P31; S05

International Patent Class (Main): A61B-018/18

International Patent Class (Additional): A61B-019/00

File Segment: EPI; EngPI

9/5/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013638791 **Image available**

WPI Acc No: 2001-122999/200113

XRAM Acc No: C01-035690

Derivatized compounds are peptide-based constructs from Domain III (amino acids 142-169) of bactericidal/permeability-increasing protein, useful as antifungal compounds

Patent Assignee: XOMA TECHNOLOGY LTD (XOMA); XOMA US TECHNOLOGY LTD (XOMA)

Inventor: GIKONYO J G K; LIN J ; LITTLE R G

Number of Countries: 094 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200100671	A1	20010104	WO 2000US17383	A	20000623	200113 B
AU 200058874	A	20010131	AU 200058874	A	20000623	200124
US 6355616	B1	20020312	US 99344541	A	19990625	200221

Priority Applications (No Type Date): US 99344541 A 19990625

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200100671 A1 E 106 C07K-014/47

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200058874 A C07K-014/47 Based on patent WO 200100671

US 6355616 B1 A61K-038/07

Abstract (Basic): WO 200100671 A1

NOVELTY - Compounds with antifungal properties comprise a sequence (I) or (II).

DETAILED DESCRIPTION - Compounds with antifungal properties comprise a sequence of formula (I) or (II).

R1=R3-, R-3-alpha- or R3-alpha-beta-;

R2=-NH2, -beta-NH2, -beta-alpha-NH2, -beta-alpha-alpha-NH2, -beta-alpha-alpha-alpha-NH2, -beta-alpha-lys(R3)-NH2, -beta-alpha-lys(R3)-alpha-NH2, -beta-alpha-alpha-lys(R3)-NH2 or -beta-alpha-lys(R3)-lys(R3)-NH2;

alpha=lysine, arginine, histidine, ornithine, diaminobutyric acid, citrulline or para-amino phenylalanine;

beta=alanine, naphthylalanine, biphenylalanine, valine, leucine,

isoleucine, proline, hydroxyproline, phenylalanine, tryptophan, methionine, glycine, cyclohexylalanine, amino-isobutyric acid, norvaline, lorleucine, tert-leucine, tetrahydroisoquinoline, pipercolic acid, phenylglycine, homophenylalanine, cyclohexylglycine, dehydroleucine, (2,2-diethylglycine), 1-amino-1-cyclopentane carboxylic acid, 1-amino-1-cyclohexane carboxylic acid, 2-amino-1-benzene carboxylic acid, 3-amino-2-naphthene carboxylic acid, γ -butyric acid, b-alanine, difluorophenylalanine, parafluorophenylalanine, nipecotic acid, aminobutyric acid, thienylalanine or t-butylglycine;

R=H, CHO-, MeCO-, R4-CH2-, R4-CH2-CO-, R4-CO-, R3-SO_y or R4PO_z;

Y=0-3;

Z=1-4;

R4=optionally functionalized carbo- or heterocycle with at least 3 atoms;

R5=R1 or R3- α -beta-beta-; and

R6=-NH₂, - α -NH₂, - α - α -NH₂, - α - α - α -NH₂, - α -lys(R3)-NH₂, - α -lys(R3)- α -NH₂, - α - α -lys(R3)-NH₂ or - α -lys(R3)-lys(R3)-NH₂.

INDEPENDENT CLAIMS are also included for:

(1) a method for identifying a derivatized peptide sequence derived from or based on the sequence of Domain III of bactericidal/permeability-increasing protein (BPI) with antimicrobial activity and epithelial absorption of at least 0.001%, comprising: i) derivatizing a peptide sequence, subsequence, reverse sequence or reverse subsequence of Domain III of BPI through covalent linkage of hydrophobic moieties at the N- or C-terminus or within the peptide sequence; ii) measuring antimicrobial activity; and iii) measuring the epithelial absorption;

(2) a method for designing and identifying an antimicrobial derivatized peptide sequence, prophylactic or therapeutic medicament derived from or based on the peptide sequence of BPI with antimicrobial activity and epithelial absorption of at least 0.001%, comprising: i) identifying a target peptide which exhibits antimicrobial activity; ii) constructing a library of minimum length, activity retaining peptide sequences (MinLARPS) by substituting or deleting amino acid residues; iii) measuring antimicrobial activity of MinLARPS to determine the minimum number of residues required to retain antimicrobial activity of at least 1% of the target peptide sequence; iv) measuring epithelial absorption of MinLARPS to determine the minimum number of residues required to retain epithelial absorption of at least 0.0011%; and v) synthesizing derivatized MinLARPS by chemically modifying MinLARPS by covalent linkage of hydrophobic moieties at the N- or C-terminus of the MinLARPS; and vi) repeating (iii) and (iv) with derivatized MinLARPS; and

(3) a compound which is any of 52 peptide sequences of 10-14 amino acids, defined in the text.

ACTIVITY - Antifungal; bactericidal.

Construct XMP.519

(R7-lys-trp-leu-ile-gln-leu-phe-his-lys(R3)-lys(R9)-NH₂) (R7=biotin; R8, R9=H) gave a radial diffusion (pmol to achieve 30 mm² zone) of 170, and MIC of 1 microg/ml against *C. albicans* SLU1 in vitro.

MECHANISM OF ACTION - None given.

USE - (I) and (II) are used to treat fungal infections, and for inhibiting growth and replication of fungi, particularly *Candida*, *Aspillerus*, *Cryptococcus*, *Histoplasma*, *Coccidioides*, *Blastomyces*, *Basidiobolus*, *Conidiobolus*, *Rhizopus*, *Rhizomucor*, *Absidia*, *Mortierella*, *Cunninghamella*, *Saksenaea*, *Fusarium*, *Trichophyton*, *Trichosporon*, *Microsporum*, *Epidermophyton*, *Scytalidium*, *Malassezia*, *Actinomyces*, *Sporothrix* or *Penicillium* (especially in vitro). (I) and (II) are also useful for treating microbial infections (especially from gram-positive bacteria) (all claimed).

pp; 106 DwgNo 0/0
Title Terms: COMPOUND; PEPTIDE; BASED; CONSTRUCTION; DOMAIN; AMINO; ACID;
BACTERIA; PERMEABLE; INCREASE; PROTEIN; USEFUL; ANTIFUNGAL; COMPOUND
Derwent Class: B04; C03
International Patent Class (Main): A61K-038/07; C07K-014/47
International Patent Class (Additional): A61K-038/08; A61K-038/10;
C07K-001/04; C07K-005/103; C07K-007/06
File Segment: CPI

X 9/5/8 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013010836
WPI Acc No: 2000-182688/200016
XRAM Acc No: C00-057285

New anti-angiogenic protein containing an IGF binding, Willebrand factor type C, thrombospondin type 1 and cysteine knot domains is useful for inhibiting atopic angiogenesis e.g. in solid tumors

Patent Assignee: CHILDRENS MEDICAL CENT (CHIL-N)

Inventor: FOLKMAN J; LIN J

Number of Countries: 021 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200005356	A1	20000203	WO 99US13338	A	19990611	200016 B
AU 9944401	A	20000214	AU 9944401	A	19990611	200029

Priority Applications (No Type Date): US 98119804 A 19980721

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200005356 A1 E 30 C12N-015/00

Designated States (National): AU CA JP

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE

AU 9944401 A C12N-015/00 Based on patent WO 200005356

Abstract (Basic): WO 200005356 A1

NOVELTY - Protein and polypeptides (I) with anti-angiogenic activity are new.

DETAILED DESCRIPTION - (I):

(a) have at least one of the following domains:

(i) insulin-like growth factor (IGF) binding domain with a consensus sequence GCGCCxxC;

(ii) Willebrand factor type C repeat domain;

(iii) thrombospondin type 1 domain with a consensus sequence

WSxCSccCG; or

(iv) C-terminal cysteine knot profile;

(b) inhibit basic fibroblast growth factor (bFGF)-stimulated bovine endothelial cell proliferation in a known assay; and

(c) have greater than 80% homology with the corresponding segment of a protein selected from defined sequences of 349, 3549 and 348 amino acids (given in the specification).

An INDEPENDENT CLAIM is also included for a nucleic acid encoding the anti-angiogenic protein.

ACTIVITY - Antiangiogenic.

MECHANISM OF ACTION - None given.

USE - A pharmaceutical composition comprising (I) is used to inhibit atopic angiogenesis in a disease or disorder, especially a solid tumor of the central nervous system or an ophthalmologic disease or disorder (all claimed).

pp; 30 DwgNo 0/0
 Title Terms: NEW; ANTI; ANGIOGENESIS; PROTEIN; CONTAIN; BIND; FACTOR; TYPE;
 TYPE; CYSTEINE; KNOT; DOMAIN; USEFUL; INHIBIT; ATOPIC; ANGIOGENESIS;
 SOLID
 Derwent Class: B04; D16
 International Patent Class (Main): C12N-015/00
 International Patent Class (Additional): A61K-035/00; A61K-038/00;
 C12N-015/63
 File Segment: CPI

9/5/9 (Item 9 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
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009188378 **Image available**
 WPI Acc No: 1992-315818/199238
 XRAM Acc No: C92-140280
 XRPX Acc No: N92-241709

Multi-wavelength solid state laser - using basic pulsed solid state laser
 which is frequency converted by set of novel nonlinear crystals to
 provide coherent radiation at UV, visible and IR wavelengths
 Patent Assignee: LASERSIGHT INC (LASE-N); JTT INT INC (JTTI-N)
 Inventor: LIN J T; LIN J
 Number of Countries: 021 Number of Patents: 012
 Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5144630	A	19920901	US 91736931	A	19910729	199238 B
WO 9303523	A1	19930218	WO 92US6219	A	19920724	199309
CA 2074749	A	19930130	CA 2074749	A	19920728	199315
AU 9225819	A	19930302	AU 9225819	A	19920724	199326
EP 597044	A1	19940518	EP 92919772	A	19920724	199420
			WO 92US6219	A	19920724	
JP 6509445	W	19941020	WO 92US6219	A	19920724	199501
			JP 93503660	A	19920724	
AU 660049	B	19950608	AU 9225819	A	19920724	199531
EP 597044	A4	19940831	EP 92919772	A		199533
EP 597044	B1	19980121	EP 92919772	A	19920724	199808
			WO 92US6219	A	19920724	
DE 69224197	E	19980226	DE 624197	A	19920724	199814
			EP 92919772	A	19920724	
			WO 92US6219	A	19920724	
ES 2111649	T3	19980316	EP 92919772	A	19920724	199817
CA 2074749	C	20010619	CA 2074749	A	19920728	200138

Priority Applications (No Type Date): US 91736931 A 19910729
 Cited Patents: US 439907; US 4880996; US 5028816; US 5065046; US 5144630;
 9.Jnl.Ref; EP 368512; EP 418890; US 4764930

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5144630	A		9	H01S-003/10	
WO 9303523	A1	E	34	H01S-003/10	
Designated States (National): AU BR JP KR					
Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LU MC NL SE					
CA 2074749	A			H01S-003/18	
AU 9225819	A			H01S-003/10	Based on patent WO 9303523
EP 597044	A1	E		H01S-003/10	Based on patent WO 9303523
Designated States (Regional): AT CH DE ES FR GB IT LI NL SE					
JP 6509445	W			H01S-003/109	Based on patent WO 9303523
AU 660049	B			H01S-003/10	Previous Publ. patent AU 9225819 Based on patent WO 9303523

EP 597044 A4 H01S-003/10
 EP 597044 B1 E 15 H01S-003/10 Based on patent WO 9303523
 Designated States (Regional): AT CH DE ES FR GB IT LI NL SE
 DE 69224197 E H01S-003/10 Based on patent EP 597044
 Based on patent WO 9303523
 ES 2111649 T3 H01S-003/10 Based on patent EP 597044
 CA 2074749 C E H01S-003/18

Abstract (Basic): US 5144630 A

A laser apparatus for producing a fifth harmonic generating beam of predetermined wavelength comprises: a solid state laser; a first nonlinear crystal for producing a second harmonic beam focussing optics for focussing the solid state laser beam into the first nonlinear crystal; a second nonlinear crystal positioned adjacent the first crystal for receiving a beam therefrom and producing a fourth harmonic beam; a third nonlinear crystal of beta barium borate (BBO) positioned adjacent the second nonlinear crystal for receiving a beam therefrom and producing a fifth harmonic beam of predetermined wavelength.

Pref. (i) the solid state laser is an optically pumped Nd-YAG laser with a pulse duration 10^{-6} - 10^{-19} secs., and a repetition rate of 1-10 power⁹ Hz; (ii) the first nonlinear crystal is lithium triborate (LBO) operated at the non-critical phase matching (NCPM) temp. 149 deg. C; (iii) the second non-linear crystal is BBO.

Further disclosed is an integrated laser appts. for producing multiwavelength coherent energy sources, which includes computer controlled optic means for receiving a number of input beams of different frequencies and outputting one of the input beams towards a target. By using optical parametric oscillation in nonlinear crystals the laser system may also produce tunable wavelengths.

USE/ADVANTAGE - Novel multiwavelength solid state laser apparatus in which the generated coherent radiations at U.V., visible and I.R. wavelengths are selected by frequency converters for multiple industrial and surgical applications. Particularly useful for ophthalmic surgery.

Dwg.1/5

Title Terms: MULTI; WAVELENGTH; SOLID; STATE; LASER; BASIC; PULSE; SOLID; STATE; LASER; FREQUENCY; CONVERT; SET; NOVEL; NONLINEAR; CRYSTAL; COHERE; RADIATE; ULTRAVIOLET; VISIBLE; INFRARED; WAVELENGTH
 Index Terms/Additional Words: OPHTHALMIC; SURGERY
 Derwent Class: L03; P32; P81; V07; V08
 International Patent Class (Main): H01S-003/10; H01S-003/109; H01S-003/18
 International Patent Class (Additional): A61F-009/00; G02B-027/10; G02F-001/35; G02F-001/37; G02F-001/39; H01S-003/23
 File Segment: CPI; EPI; EngPI

9/5/10 (Item 10 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01484148

APPARATUS FOR TREATMENT OF PRESBYOPIA AND OTHER EYE DISORDERS USING A DUAL-LASER SCANNING SYSTEM

APPAREIL POUR LE TRAITEMENT DE LA PRESBYTIE ET D'AUTRES TROUBLES DE LA VUE, FAISANT APPEL A UN SYSTEME DE BALAYAGE LASER A DOUBLE FAISCEAU

PATENT ASSIGNEE:

Lin, J. T., (4101570), 4532 Old Carriage Trail, Oviedo, FL 32765, (US),
 (Applicant designated States: all)

INVENTOR:

Lin, J. T. , 4532 Old Carriage Trail, Oviedo, FL 32765, (US)
 PATENT (CC, No, Kind, Date):

WO 2002069828 020912
APPLICATION (CC, No, Date): EP 2001916402 010306; WO 2001US7047 010306
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: A61B-019/00
LEGAL STATUS (Type, Pub Date, Kind, Text):
Application: 021106 A1 International application. (Art. 158(1))
Application: 021106 A1 International application entering European
phase
LANGUAGE (Publication,Procedural,Application): English; English; English

9/5/11 (Item 11 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2002 European Patent Office. All rts. reserv.

01477357
APPARATUS FOR TREATMENT OF PRESBYOPIA AND OTHER EYE DISORDERS USING
FIBER-COUPLED-LASERS
APPAREIL DE TRAITEMENT DE LA PRESBYTIE ET D'AUTRES AFFECTIONS DE L'OEIL,
METTANT EN OEUVRE DES LASERS COUPLES PAR FIBRES
PATENT ASSIGNEE:
Lin, J. T., (4101570), 4532 Old Carriage Trail, Oviedo, FL 32765, (US),
(Applicant designated States: all)
INVENTOR:
Lin, J. T. , 4532 Old Carriage Trail, Oviedo, FL 32765, (US
PATENT (CC, No, Kind, Date):

WO 2002036029 020510
APPLICATION (CC, No, Date): EP 2001959565 010807; WO 2001US24618 010807
PRIORITY (CC, No, Date): US 706382 001106
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: A61B-018/18
LEGAL STATUS (Type, Pub Date, Kind, Text):
Application: 021030 A1 International application. (Art. 158(1))
Application: 021030 A1 International application entering European
phase
LANGUAGE (Publication,Procedural,Application): English; English; English

Set	Items	Description
S1	1571	AU='LIN J'
S2	31	AU='LIN J T'
S3	1599	S1 OR S2
S4	3	S3 AND OPHTHALM?
S5	3	IDPAT (sorted in duplicate/non-duplicate order)
S6	10	S3 AND PRESBYOP?
S7	13	S6 OR S5
S8	13	IDPAT (sorted in duplicate/non-duplicate order)
S9	11	IDPAT (primary/non-duplicate records only)

? show files

File 347:JAPIO Oct 1976-2002/Sep(Updated 030102)

(c) 2003 JPO & JAPIO

File 348:EUROPEAN PATENTS 1978-2002/Dec W03

(c) 2002 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20030102,UT=20021226

(c) 2003 WIPO/Univentio

File 350:Derwent WPIX 1963-2002/UD,UM &UP=200301

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File 371:French Patents 1961-2002/BOPI 200209

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9/5/1 (Item 1 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
 (c) 2003 Thomson Derwent. All rts. reserv.

014614952 **Image available**
 WPI Acc No: 2002-435656/200246
 XRPX Acc No: N02-342931

Surgical apparatus for use in presbyopia correction comprises a beam spot controller, fiber delivery unit with tip, and a laser beam that includes UV lasers and infrared lasers

Patent Assignee: LIN J T (LINJ-I)

Inventor: LIN J T

Number of Countries: 091 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200236029	A1	20020510	WO 2001US24618	A	20010807	200246 B
AU 200181107	A	20020515	AU 200181107	A	20010807	200258

Priority Applications (No Type Date): US 2000706382 A 20001106

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200236029 A1 E 19 A61B-018/18

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
 CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
 KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE
 SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
 IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200181107 A A61B-018/18 Based on patent WO 200236029

Abstract (Basic): WO 200236029 A1

NOVELTY - Apparatus comprises a beam spot controller (3), fiber delivery unit (4,5) and a fiber tip (6). The basic **laser** beam (1) includes UV **lasers** and infrared **lasers** having wavelength ranges of 0.15-0.36 microns and 0.5-3.2 microns and diode **lasers** of about 0.98, 1.5 and 1.9 microns. Presbyopia is treated by a system which uses an **ablative laser** (1) to **ablate** the **sclera** tissue in a predetermined patterns outside the limbus to increase the accommodation of the **ciliary** body of the eye.

USE - For presbyopia correction and eye disorders such as glaucoma and cataracts by laser removal of the sclera tissue.

DESCRIPTION OF DRAWING(S) - The drawing shows a surgical apparatus.

Laser beam (1)

Spot controller (3)

fiber delivery unit (4,5)

Tip (5)

pp; 19 DwgNo 1/3

Title Terms: SURGICAL; APPARATUS; PRESBYOPIA; CORRECT; COMPRISE; BEAM; SPOT
 ; CONTROL; DELIVER; UNIT; TIP; LASER; BEAM; ULTRAVIOLET; LASER; INFRARED;
 LASER

Derwent Class: P31; S05; U12; V08; X24

International Patent Class (Main): A61B-018/18

File Segment: EPI; EngPI

9/5/2 (Item 2 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
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014342814 **Image available**

WPI Acc No: 2002-163517/200221

Related WPI Acc No: 2002-096415

XRPX Acc No: N02-124819

Laser beam ophthalmic surgery for presbyopia treatment, involves causing movement of ciliary muscle and zonular fiber connected to corneal lens of eye

Patent Assignee: LIN J T (LINJ-I); SURGILIGHT INC (SURG-N)

Inventor: LIN J T; COZEAN C

Number of Countries: 100 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010029363	A1	20011011	US 99303673	A	19990503	200221 B
			US 2001820832	A	20010330	
WO 200294129	A2	20021128	WO 2002US10069	A	20020329	200280

Priority Applications (No Type Date): US 2001820832 A 20010330; US 99303673 A 19990503

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20010029363	A1	7	A61B-018/18	CIP of application US 99303673 CIP of patent US 6258082

WO 200294129 A2 E A61F-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20010029363 A1

NOVELTY - A portion of the scleral tissue (13) of an eye is ablated in a predetermined pattern and area. The ablated gap is filled in by the subconjunctiva tissue, which causes the movement of ciliary muscle (14) and zonular fiber (15) connected to the corneal lens (12) of the eye, to increase the accommodation of presbyopic eye.

USE - For treatment of presbyopia.

ADVANTAGE - The sclera ablation increases the accommodation of the **ciliary** muscle by the increase of flexibility in the **laser ablated sclera** areas.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic drawing of anteroposterior section through anterior portion of human eye showing sclera, ciliary muscle, zonule and the lens.

Corneal lens (12)

Scleral tissue (13)

Ciliary muscle (14)

Zonular fiber (15)

pp; 7 DwgNo 1/3

Title Terms: LASER; BEAM; OPHTHALMIC; SURGICAL; PRESBYOPIA; TREAT; CAUSE; MOVEMENT; CILIARY; MUSCLE; CONNECT; CORNEA; LENS; EYE

Derwent Class: P31; P32; S05

International Patent Class (Main): **A61B-018/18** ; A61F-000/00

File Segment: EPI; EngPI

9/5/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014275716 **Image available**

WPI Acc No: 2002-096418/200213
Related WPI Acc No: 2001-521034
XRPX Acc No: N02-071177

Laser beam ophthalmological surgery method involves controlling scanning mechanism to deliver ablative laser beam pattern onto cornea to photoablate sclera tissue outside limbus

Patent Assignee: LIN J T (LINJ-I)

Inventor: LIN J T

Number of Countries: 094 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6263879	B1	20010724	US 98189609	A	19981110	200213 B
WO 200269828	A1	20020912	WO 2001US7047	A	20010306	200270 N

Priority Applications (No Type Date): US 98189609 A 19981110; WO 2001US7047 A 20010306

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 6263879	B1		8	A61B-019/00	
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WO 200269828	A1	E		A61B-019/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

Abstract (Basic): US 6263879 B1

NOVELTY - A scanning mechanism is controlled to deliver an ablative laser beam in a predetermined pattern on a predetermined area of the cornea to photoablate the sclera tissue outside the limbus, so that a presbyopic patient's vision is corrected by expansion of the sclera.

DETAILED DESCRIPTION - A pulse ablation laser having a pulsed output beam of predetermined wavelength and beam spot controller mechanism for reducing and focusing the selected laser beam onto a predetermined spot size on the surface of the cornea are selected. A scanning mechanism is selected for scanning the ablative laser output beam. The laser beam is coupled to a scanning device for scanning the ablative laser over a predetermined area of the corneal sclera. A metal mask having a slit is selected and positioned over the cornea surface for scanning the ablation laser over the mask, to control the ablation slit pattern on the sclera tissue outside the limbus.

USE - Used for the treatment of presbyopia and prevention of glaucoma using dual-beam scanning lasers.

ADVANTAGE - Provides the well defined **laser** parameters for efficient and accurate **sclera** expansion for presbyopia reversal and the treatment and preventing of open angle glaucoma. A scanning device enables controlling degree of **ciliary muscle** accommodation according to the location, size and shapes of the **removed sclera** tissue. The scanning device provides scanning patterns to cause effective **sclera** expansion.

DESCRIPTION OF DRAWING(S) - The figure shows the diagram of a possible ablation pattern to achieve presbyopia reversal.

pp; 8 DwgNo 4A/4

Title Terms: LASER; BEAM; OPHTHALMIC; SURGICAL; METHOD; CONTROL; SCAN;

MECHANISM; DELIVER; ABLATE; LASER; BEAM; PATTERN; CORNEA; SCLERA; TISSUE

Derwent Class: P31; S05; V07; V08

International Patent Class (Main): **A61B-019/00**

File Segment: EPI; EngPI

9/5/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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014036821 **Image available**
WPI Acc No: 2001-521034/200157
Related WPI Acc No: 2002-096418
XRPX Acc No: N01-385954

**Laser beam ophthalmic surgery method for treatment of presbyopia,
involves removing portion of scleral tissue of eye and filling tissue gap
with sub-conjunctival tissue**

Patent Assignee: LIN J T (LINJ-I)

Inventor: LIN J T

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010016736	A1	20010823	US 98189609	A	19981110	200157 B
			US 2001794496	A	20010228	

Priority Applications (No Type Date): US 2001794496 A 20010228; US 98189609
A 19981110

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20010016736	A1	7	A61B-018/18	CIP of application US 98189609

Abstract (Basic): US 20010016736 A1

NOVELTY - A portion of the scleral tissue of an eye is removed by irradiating laser beam. The tissue gap formed is filled by a sub-conjunctival tissue. The sub-conjunctival tissue allows the ciliary body to contract and expand the zonular fiber which is connected to the lens of the eye, to increase accommodation of lens.

USE - For treatment of presbyopia using scanning and fiber-coupled lasers.

ADVANTAGE - The laser ablated sclera area becomes more flexible without weakening, thus accommodating lens efficiently.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of integrated laser system consisting of ablative laser coupled to corner by a reflection mirror and a scanning device.

pp; 7 DwgNo 1/3

Title Terms: LASER; BEAM; OPHTHALMIC; SURGICAL; METHOD; TREAT; PRESBYOPIA;
REMOVE; PORTION; SCLERAL; TISSUE; EYE; FILL; TISSUE; GAP; SUB; CONJUCTIVA
; TISSUE

Derwent Class: P31; S05

International Patent Class (Main): A61B-018/18

International Patent Class (Additional): A61B-019/00

File Segment: EPI; EngPI

Set	Items	Description
S1	635	PRESBYOP? OR FARSIGHT? OR FAR()SIGHT?
S2	550861	LASER? ?
S3	2016711	ABLAT? OR DESTROY? ? OR DESTRUCT? OR ELIMINAT? OR REMOV?
S4	967	SCLERA?
S5	29367	CILIAR? OR MUSCL?
S6	4	S2(S)S3(S)S4(S)S5
S7	4	IDPAT (sorted in duplicate/non-duplicate order)
S8	4	IDPAT (primary/non-duplicate records only)
S9	4	S8 AND IC=A61B

? show files

File 347:JAPIO Oct 1976-2002/Sep(Updated 030102)

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File 350:Derwent WPIX 1963-2002/UD,UM &UP=200301

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File 371:French Patents 1961-2002/BOPI 200209

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11/5,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2002 European Patent Office. All rts. reserv.

01319030

Treatment of presbyopia and other eye disorders

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Tunbridge Wells Kent TN4 8EL, (GB)

PATENT (CC, No, Kind, Date): EP 1125560 A2 010822 (Basic)
EP 1125560 A3 011004

APPLICATION (CC, No, Date): EP 2001201708 930713;

PRIORITY (CC, No, Date): US 913486 920715

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC;
NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 746271 (EP 93919820)

INTERNATIONAL PATENT CLASS: A61F-002/14; A61F-002/16; A61F-009/007

ABSTRACT EP 1125560 A2

Presbyopia and hyperopia are treated by a method which increases the amplitude of accommodation by increasing the effective working distance of the ciliary muscle in the presbyopic eye. The effective working distance of the ciliary muscle can be increased by expanding the sclera in the region of the ciliary body. This expansion may be accomplished by suturing to the sclera in the region of the ciliary body a relatively rigid band having a diameter slightly greater than that of the sclera in that region. The scleral expansion band (102) comprises anterior (108) and posterior (106) rims and a web (104) extending between the rims, the anterior rim having a smaller diameter than the posterior rim. The band may be provided with one or more holes (110) to assist in suturing.

ABSTRACT WORD COUNT: 131

NOTE:

Figure number on first page: 4

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010822 A2 Published application without search report
Examination: 010822 A2 Date of request for examination: 20010606
Change: 011004 A2 International Patent Classification changed:
20010813
Search Report: 011004 A3 Separate publication of the search report
Change: 011107 A2 Inventor information changed: 20010919
Examination: 020306 A2 Date of dispatch of the first examination
report: 20020121

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200134	740
SPEC A	(English)	200134	8073
Total word count - document A			8813
Total word count - document B			0
Total word count - documents A + B			8813

...SPECIFICATION in the region of the ciliary body by abrading the sclera with laser irradiation, the **laser** is operable to weaken the **sclera** of the eye in the region of the **ciliary** body by **ablating** the **sclera** with **laser** irradiation, the laser is operable to weaken the sclera of the eye in the region...

...comprises the step of abrading the sclera with laser irradiation, said step of irradiating the **sclera** of the eye in the region of the **ciliary** body further comprises the step of **ablating** the **sclera** with **laser** irradiation;

said step of irradiating the sclera of the eye in the region of the... to weaken it and permit it to be expanded by the intraocular pressure.

Alternatively, the **sclera** in the region of the **ciliary** body may be weakened by surgical means. The **sclera** may be thinned or weakened by the surgical **removal** of a portion of its collagenous substance, as, for example by **ablating** a portion of the thickness of the **sclera**. This thinning can be accomplished by paring or by abrading the surface or by **ablating** the surface with **laser** irradiation. The **sclera** can also be weakened by incisions carefully placed at appropriate angles in the region overlying the **ciliary** body. The diameter of the **sclera** overlying the **ciliary** body can also be increased by making a complete periglobular incision and grafting into the incision appropriate tissue and/or physiologically acceptable structural material to increase the dimensions of the **sclera**. Thus an artificial **scleral** alloplant made of purified human collagen may be engrafted into such an incision. Other known...

...engrafting into such an incision. It is also possible to excise a small strip of **sclera** from the region overlying the **ciliary** body and replace it with a **scleral** alloplant as described above to provide an appropriate increase in the diameter of this region. Alternatively the **sclera** in the region overlying the **ciliary** body can be weakened by irradiation with a **laser** beam to decompose partially the collagen fibers. Suitable **lasers** include those conventionally used in ocular surgery such as carbon dioxide **lasers**, helium-neon **lasers**, helium-cadmium **lasers**, argon ion **lasers**, krypton ion **lasers**, xenon **lasers**, nitrous oxide **lasers**, iodine **lasers**, holmium doped yttrium-aluminum garnet (YAG) **lasers**, excimer **lasers**, chemical **lasers**, harmonically oscillated **lasers**, dye **lasers**, nitrogen **lasers**, neodymium **lasers**, erbium **lasers**, ruby **lasers**, titanium-sapphire **lasers**, diode **lasers** and the like. Any irradiative treatment with ionizing or non-ionizing radiation that weakens the **sclera** may be used. For example irradiation with electrons, protons, or x-rays and the like ...

...scarring in the appropriate area may also be used to induce an enlargement of the **sclera** in the area adjacent to the **ciliary** body. Treatments designed to weaken the sclera in the region overlying the ciliary body can...

11/5,K/2 (Item 2 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
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00758835

GLAUCOMA IMPLANT WITH A TEMPORARY FLOW-RESTRICTING SEAL

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PATENT (CC, No, Kind, Date): EP 773759 A1 970521 (Basic)
EP 773759 B1 991124
WO 9603944 960215

APPLICATION (CC, No, Date): EP 95927548 950801; WO 95US9660 950801

PRIORITY (CC, No, Date): US 283961 940801

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC;
NL; PT; SE

INTERNATIONAL PATENT CLASS: A61F-009/00; A61M-027/00

CITED PATENTS (EP B): EP 102747 A; WO 91/12046 A; WO 91/18568 A; WO
93/20783 A; WO 94/02081 A; US 4521210 A; US 4750901 A; US 5171213 A

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Oppn None: 001108 B1 No opposition filed: 20000825

Application: 960522 A International application (Art. 158(1))

Application: 970521 A1 Published application (A1with Search Report
;A2without Search Report)

Examination: 970521 A1 Date of filing of request for examination:
970225

Examination: 971001 A1 Date of despatch of first examination report:
970819

*Assignee: 990120 A1 Applicant (transfer of rights) (change):
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;SE)

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AT;BE;CH;DE;DK;ES;FR;GB;GR;IE;IT;LI;LU;MC;NL;PT
;SE)

Change: 990303 A1 Title of invention (German) (change)

Grant: 991124 B1 Granted patent

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9947	536
CLAIMS B	(German)	9947	546
CLAIMS B	(French)	9947	576
SPEC B	(English)	9947	6941
Total word count - document A			0
Total word count - document B			8599
Total word count - documents A + B			8599

...SPECIFICATION 65 and positioned beneath the Tenon's capsule 44 and a

portion of the rectus **muscle** 64 or extending totally under one or more **muscles** , thus covering the **sclera** 14. The plate 38 can be sutured to the **sclera** 14, or alternatively, to the rectus **muscle** 64 if the **sclera** 14 is thinned by disease, with the suture holes 60, 62. Preferably, nonabsorbable nylon sutures...

...8-0 nylon or polypropylene sutures. The drainage tube 41 is tunneled out through the **sclera** 14 and the cornea 16 beneath Tenon's capsule 44 and in through an incision...

...eye 12. The exposed portion of the drainage tube 41 is then covered with a **scleral** reinforcing element 50. In one embodiment, the drainage tube 41 is sutured closed with a temporary suture(s) 63, 67 at a location on either side of the **sclera** reinforcing element 50 to prevent any drainage of aqueous prior to formation of the bleb...

...until the bleb 52 has formed and the temporary suture(s) 63, 67 is/are **removed** or absorbed by the body. In one embodiment, the temporary suture(s) 63 is a...

...is nonabsorbable. In an alternate, but not preferred, embodiment, the temporary sutures 63, 67 are **removed** during a secondary procedure, such as a surgical procedure or an ophthalmic **laser** procedure. Both procedures are known to those of skill in the art.
The formation of...

11/5,K/3 (Item 3 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00960457 **Image available**

METHODS AND APPARATUS FOR PRESBYOPIA CORRECTION USING ULTRAVIOLET AND INFRARED LASERS

PROCEDES ET APPAREIL DE CORRECTION DE PRESBYTIE FAISANT APPEL AUX LASERS ULTRAVIOLETS ET INFRAROUGES

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ALTMAN Daniel E (agent), KNOBBE, MARTENS, OLSON AND BEAR, LLP, 620

Newport Center Drive, 16th Floor, Newport Beach, CA 92660, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200294129 A2 20021128 (WO 0294129)

Application: WO 2002US10069 20020329 (PCT/WO US0210069)

Priority Application: US 2001820832 20010330

Designated States: AE AG AL AM AT (utility model) AT AU AZ BA BB BG BR BY
BZ CA CH CN CO CR CU CZ (utility model) CZ DE (utility model) DE DK
(utility model) DK DM DZ EC EE (utility model) EE ES FI (utility model)
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU
LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK
(utility model) SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

Bad
Date

(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: A61F
Publication Language: English
Filing Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 4348

English Abstract

Presbyopia is treated by a system using various lasers to remove a portion of the scleral tissue and increase the accommodation of the presbyopic patient's eye. Stable accommodation is achieved by the filing of the sub-conjunctiva tissue to the laser-ablated scleral areas. The proposed laser wavelength ranges from ultraviolet to infrared of (0.15-0.36) microns, (0.5-1.4) microns and (0.9-3.2) microns. Both scanning and fiber delivered systems are proposed to generate the ablation patterns. Laser ablation of the sclera may be conducted with or without opening the conjunctiva layer.

Legal Status (Type, Date, Text)

Publication 20021128 A2 Without international search report and to be republished upon receipt of that report.

Detailed Description

... results which show myopia regression. We proposed a theory based upon the fact that the **laser ablated sclera** tissue will be filled in by the sub-conjunctiva tissue within few days ...the surgery. This filled in sub-conjunctiva tissue is much more flexible than the original **sclera** tissue. Therefore the filled-in gap in the **sclera** area will cause the underlying **ciliary** body to have more space to move. This in turn will allow the **ciliary** body to contract or expand the zonular fiber which is connected to the lens, when...

...The above described subconjunctiva tissue filling effects and the increase of flexibility of the **sclera** area are fundamentally different from the **scleral** "expansion" of prior arts of Schachar who proposed an implanted scleral band. In the present invention, the **laser ablated sclera** area is not so weakening, it becomes more flexible instead.

Therefore one objective of the...tissue ablation.

It is yet another objective of the present invention to define the optimal **laser** parameters and the **ablation** patterns for the best clinical outcome for presbyopia patients, where **sclera ablation** will increase the accommodation of the **ciliary** muscle by the increase of the flexibility in the **laser - ablated** areas.

It is yet another objective of the present invention to provide the appropriate scanning...the present invention to provide a new mechanism which supports the clinical results of **laser** presbyopia correction with minimum regression. One important concept proposed in the present invention is to support the post-operative results which show minimum regression when presbyopia is corrected by a **laser ablation** for the **sclera** tissue. We proposed that the **laser ablated sclera** tissue "gap" be filled in by the sub-conjunctiva tissue within few days after the

surgery. This filled4n siLib-conjunctiva tissue is much more flexible than the original **sclera** tissue. Therefore the flexible filled4n gap in the **sclera** area will allow the ciliary body to contract and cause the zonular fiber and the corneal lens to adjust its...

...increase the accommodation of presbyopic patient The concept presented in the present patent is to **remove**, by any methods including **laser** or nonlaser methods, portion of the **sclera** tissue which is then filled in by sub-conjunctiva tissue to increase the flexibility of the **scleral** area and in turn causes the movement of the **ciliary**, body and zonular fiber to increase the lens accommodation.

SUMMARY OF THE ...rings, or a slit pattern.

8 It is yet another embodiment of the present surgical **laser** to provide an integration system in which 9 the **sclera** **ablation** leads to the increase of the accommodation of the **ciliary** **muscle** for the treatment of presbyopia..

Further preferred embodiments of the present surgical laser will become ...of the present invention and as shown in Figure 3. when a portion of the **sclera** tissue 13 is **removed** by an **ablative laser**, this **ablated**. "gap" 19 will be filled in by the subconjunctiva tissue 21 which is much more flexible than the original **sclera** tissue 13. This filled in subconjunctiva 21 will allow the **ciliary** body 14 to contract or relax the zonular fiber 15 which is connected to the lens, when the presbyopic patient is adjusting his lens curvature to see near and far. **Ablation** of the **sclera** 13 will cause the **ciliary** body 14 to contract and the lens 12 becomes more spherical in topography 1 with a shorter radius of curvature for near objects. The reversed process of **ciliary** **muscle** relaxation will cause a longer radius of curvature for distant objects. Therefore; **laser** **ablation** of the **sclera** tissue will increase the accommodation of the **ciliary** body for the presbyopic patient to see both near and distance.

Typically, we open the...is to support the post-operative results which show minimum regression. We proposed that the **laser** **ablated** **sclera** tissue 'gap' will be .3 filled in by the sub-conjunctiva tissue within few days...

...the surgery. This filled in sub-conjunctiva tissue is much more flexible than the original **sclera** tissue. therefore the filled4n gap in the **sclera** area will cause the underlying **ciliary** body to contract or expand the zonular fiber and the lens when the presbyopic patient is adjusting the corneal lens power to see near and far.'

To **remove** the **sclera** tissue, we typically open the conjunctiva first such that the underlying **laser** **ablated** area may be protected by the conjunctiva during the healing period. The preferred embodiment is 9 to use mechanical method such as a knife or a scissors. Alternatively, the same **ablative laser** for **sclera** tissue **ablation** may be used to open (**ablate**) the conjunctiva. Another preferred embodiment is to couple the **laser** to a fiber which has a fiber tip having a size about (0.05) mm and can easily penetrate into the conjunctiva layer and **ablate** the **sclera** tissue underneath. Without opening the conjunctiva, the laser ablation procedure will be much less invasive to the cornea, because most of the bleeding during...

Claim

- 3 1. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** a portion of the **scleral** tissue of an eye in a predetermined pattern and area, whereby the accommodation of the...
...body and zonular fiber connected to the corneal lens of the eye. 8 2. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** a portion of the **scleral** tissue of an eye in accordance with claim 1 in which said movement of the **ciliary** body is provided by the increase of the flexibility of said **laser** beam **ablated** said **scleral** tissue which is filled in by the subconjunctival tissue. 13 3. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** portion of the **scleral** tissue of an eye in accordance with claim 1 in which said predetermined pattern includes...
...mm in width and (2.0 - 5.0) mm in length. 18 4. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** portion of the **scleral** tissue of an eye in accordance with claim 1 in which said predetermined area defined...
...two circles having diameter of about 10 mm and 18 mm. 22 5. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** portion of the **scleral** tissue of an eye in accordance with claim 1 in which said predetermined pattern includes...
...3 curved lines around the area of the cornea outside the iris. 26 6. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** portion of the **scleral** tissue of an eye in accordance with claim 1 in which said predetermined pattern includes...
...has a size of about (0.1 - 2.0) mm in diameter. 31 7. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** portion of the **scleral** tissue of an eye in accordance with claim 1 in which said predetermined pattern is generated by a scanning mechanism. 35 8. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** portion of the **scleral** tissue, of an eye in accordance with claim 1 in which said predetermined pattern is generated by a fiber-coupled device,
8
9. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** portion of the **scleral** tissue of an eye in accordance with claim 1 in which said predetermined pattern is generated by a device. 5 10. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** portion of the **scleral** tissue of an eye in accordance with claim 1 in which said predetermined pattern is generated by a mask which is non-transparent to the said **laser** beam. 9 11. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** portion of the **scleral** tissue of an eye in accordance with claim 1 in which said **laser** beam is a ultraviolet **laser** having a predetermined wavelength of about (0.15 - 0.36) microns.
2
3 12. A **laser** beam ophthalmic surgery method for treating presbyopic patient by **removing** portion of the **scleral** tissue of an eye in accordance with claim 1 in which said **laser** beam is an infrared **laser** having a predetermined wavelength of about (0.60) microns.

13 A laser...

11/5,K/4 (Item 4 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00944871 **Image available**

TREATMENT OF COLLAGEN
TRAITEMENT DU COLLAGENE

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200278556 A1 20021010 (WO 0278556)

Application: WO 2002US10121 20020401 (PCT/WO US0210121)

Priority Application: US 2001280670 20010330; US 2001311518 20010811

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO

RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

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Main International Patent Class: A61B-018/18

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 10760

English Abstract

A system and method for the treatment of ocular collagen connective tissue comprises identifying a length of the ocular collagen connective tissue (AZ) extending between the ciliary muscle (CM) and the lens (L) of an eye. A source of energy is then directed at at least one selected site along the length of the connective tissue, the amount of energy being sufficient to cause longitudinal shrinkage in the length of connective tissue.

Legal Status (Type, Date, Text)

Publication 20021010 A1 With international search report.

Publication 20021010 A1 Before the expiration of the time limit for
amending the claims and to be republished in the
event of the receipt of amendments.

Detailed Description

... Reported complications of this procedure have been anterior segment ischemia and cosmetic blemishes.

*Bad
Date*

Another **scleral** weakening process is described Dr. J. T. Lin. This process is called **laser** presbyopic correction (LPC). In this procedure, an erbium:YAG **laser** emitting at 2.93u, sequentially **ablates** away **scleral** tissue until the choroid is visible through the overlying thinned **scleral** tissue over the **ciliary** body. This process is based upon the hypothesis that the **sclera** become more rigid with age thus attenuating the movement of the **ciliary** inuscle. **Laser** **ablation** of this tissue in each quadrant (between the extraocular **muscle** insertions) would facilitate **ciliary** **muscle** action by weakening and invaginating the **sclera** , thus allowing the lens to change its shape and accommodate. A potential complication of this...

11/5,K/5 (Item 5 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
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00936149 **Image available**

APPARATUS FOR TREATMENT OF PRESBYOPIA AND OTHER EYE DISORDERS USING A
DUAL-LASER SCANNING SYSTEM

APPAREIL POUR LE TRAITEMENT DE LA PRESBYTIE ET D'AUTRES TROUBLES DE LA VUE,
FAISANT APPEL A UN SYSTEME DE BALAYAGE LASER A DOUBLE FAISCEAU

Patent Applicant/Inventor:

LIN J T, 4532 Old Carriage Trail, Oviedo, FL 32765, US, US (Residence),
US (Nationality)

Legal Representative:

HOBBY William M III (agent), Suite 375, 157 East New England Avenue,
Winter Park, FL 32789, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200269828 A1 20020912 (WO 0269828)

Application: WO 2001US7047 20010306 (PCT/WO US0107047)

Priority Application: WO 2001US7047 20010306

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A61B-019/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 4256

English Abstract

Presbyopia is treated by using an **ablative** **laser** (1) to **ablate** the **sclera** tissue and increase the accommodation of the **ciliary** body. Tissue bleeding is prevented by a dual-beam system which consists of **ablative** and coagulative **lasers** (1, 6). The preferred embodiments of the present invention include a short pulse **ablative** **laser** (1) having a wavelength of between 0.15 and 3.2 microns and a long pulse (longer than 200 nanoseconds) coagulative **laser** (6) having a wavelength range of between 0.5 and 10.6 microns. A scanning system (8) performs various

Bad
Date

scanning patterns on the **sclera** area of the cornea to treat presbyopia and to prevent other eye disorder such as glaucoma. **Laser** parameters are determined for accurate **sclera** expansion.

Legal Status (Type, Date, Text)

Publication 20020912 A1 With international search report.

Detailed Description

... the cornea.

It is yet another objective of the present invention to define the optimal **laser** parameters and the **ablation** patterns for best clinical outcome for presbyopia patients, where **sclera** expansion will increase the accommodation of the **ciliary muscle**. It is yet another objective of the present invention to provide the appropriate scanning patterns...

BRIEF DESCRIPTION OF THE DRAWINGS

32 Figure 1 is a block diagram of an integrated **laser** system consisting of two **lasers** of different wavelengths coupled to the cornea by mirrors and a scanning device;

Figure 2 is a block diagram of a **laser** system where the coagulative **laser** is fiber-coupled and manually delivered to the cornea;

Figure 3 is the schematic drawing of the anteroposterior section through the anterior portion of a human eye, where the **sclera** and **ciliary muscle** are shown; and

Figures 4A-4D are diagrams of the possible **ablation** patterns which will achieve a presbyopia reversal.

DETAILED DESCRIPTION OF THE INVENTION AND THE PREFERRED EMBODIMENTS...of ciliary muscle relaxation will cause a longer radii of curvature for distant objects.

Therefore, **laser ablation** of the **sclera** tissue will increase the accommodation of the **ciliary** body for the presbyopic patient to see both near and distance. For efficient **sclera** expansion, the depth of the **laser ablation** needs to be approximately 80° - 90° of the **sclera** thickness which is about 500 - 700 microns.

For safety reasons, the ablation depth should not...

11/5,K/6 (Item 6 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.

00923129 **Image available**

DEVICE FOR SCLERA ABLATION

DISPOSITIF D'ABLATION DE LA SCLERE.

Patent Applicant/Assignee:

CORNEAL INDUSTRIE, Parc d'Activites Pre-Mairy, F-74370 Pringy, FR, FR
(Residence), FR (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

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POLLIER Vivien, 4, place de l'Hotel de Ville, F-74150 Rumilly, FR, FR (Residence), FR (Nationality), (Designated only for: US)

Legal Representative:

DRONNE Guy (et al) (agent), Cabinet Beau De Lomenie, 158, rue de

Bad
Date

l'Universite, F-75340 Cedex 07 Paris, FR,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200256807 A1 20020725 (WO 0256807)
Application: WO 2002FR198 20020118 (PCT/WO FR0200198)
Priority Application: FR 2001719 20010119
Designated States: CA JP US
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
Main International Patent Class: A61F-009/009
Publication Language: French
Filing Language: French
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 3359

English Abstract

The invention concerns a device for sclera ablation characterised in that it comprises a mask consisting of a plate (20, 20') produced in a biocompatible material having a substantially planar first surface (20b, 20'b) designed to be pressed against the outer wall of the eye, opposite the sclera; a window (22, 22') arranged in said plate, said window defining the dimensions of the recess to be produced in the sclera, said window having a substantially polygonal contour whereof the greater side is long by at least 3 mm; and means (8, 36) for maintaining said plate so that its first surface is pressed against the outer wall of the eye.

Legal Status (Type, Date, Text)

Publication 20020725 A1 With international search report.
Publication 20020725 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Detailed Description

... mm de la zone frontiere entre la sclere 4 et la cornee 2 appelee eperon **scleral** . Prealablement a la mise en place du masque 20, ...32 qui est rabattue egalement vers la cornee. Le chirurgien repere alors le l'eperon **scleral** 34 et met en place le masque 20 qui a ete defini precedemment. Grace au...

...par une pince ou tout autre instrument chirurgical convenable 36. Le chirurgien active alors le **laser** 38 du type defini ci-dessus de telle maniere que le faisceau du **laser** balaye toute la surface de la fenetre 22. Grace au fait que la plaquette 20 est transparente, le chirurgien peut detecter, au fur et a mesure de l' **ablation** limbaire, le moment ou le **muscle** de la paroi de l'oeil apparait a nu, cet instant etant revele par le...

11/5,K/7 (Item 7 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00902364 **Image available**
APPARATUS FOR TREATMENT OF PRESBYOPIA AND OTHER EYE DISORDERS USING
FIBER-COUPLED-LASERS
APPAREIL DE TRAITEMENT DE LA PRESBYTIE ET D'AUTRES AFFECTIONS DE L'OEIL,
METTANT EN OEUVRE DES LASERS COUPLES PAR FIBRES

Bad
Date

Patent Applicant/Inventor:

LIN J T, 4532 Old Carriage Trail, Oviedo, FL 32765, US, US (Residence),
US (Nationality)

Patent and Priority Information (Country, Number, Date):

Patent: WO 200236029 A1 20020510 (WO 0236029)

Application: WO 2001US24618 20010807 (PCT/WO US0124618)

Priority Application: US 2000706382 20001106

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK
DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ
TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A61B-018/18

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 5855

English Abstract

A surgical apparatus and surgical techniques for presbyopia correction and other eye disorders such as glaucoma and cataracts by **laser removal** of the **sclera** tissue are disclosed. The disclosed preferred embodiments of the system consists of a beam spot controller (3), a fiber delivery unit (4, 5) and a fiber tip (6). The basic **laser** beam (1) includes UV **lasers** and infrared **lasers** having wavelength ranges of (0.15-0.36) microns and (0.5-3.2) microns and diode **lasers** of about 0.98, 1.5 and 1.9 microns. Presbyopia is treated by a system which uses an **ablative laser** (1) to **ablate** the **sclera** tissue in a predetermined patterns (9) outside the limbus (8) to increase the accommodation of the **ciliary** body of the eye (7). Both scanning and fiber delivered systems are proposed. The surgery apparatus also includes non-**laser** device of radio frequency wave, electrode device, bipolar device and plasma assisted device.

Legal Status (Type, Date, Text)

Publication 20020510 A1 With international search report.

Fulltext Availability:

Detailed Description

Detailed Description

... support 12 the post-operative results which show minimum regression.
We proposed that 13 the **laser ablated sclera** tissue "gap" will be filled in by the sub-conjunctival 14 tissue within few days...

...flexible than the original sclera tissue. Therefore the filled-in gap in 16 the **sclera** area will cause the underlying **ciliary** body to have more space to 17 move. This in turn will allow the **ciliary** body to contract or expand the zonular 18 fiber which is connected to the lens...

...above described sub-conjunctival 20 tissue filling effects and the increase of "flexibility" of the **sclera** area are 21 fundamentally different from the **scleral** "expansion"(or weakening) concept 22

proposed by the prior arts of Schachar and proposed by the implant of a scieral 23 band. In the present invention, the **laser ablated sclera** area is not weakening, 24 it becomes more flexible instead.

25 One objective of the...

...33 It is yet another objective of the present invention to define the optimal 34 **laser** parameters and the **ablation** patterns for best clinical outcome for 35 presbyopia patients, where **sclera ablation** will increase the accommodation of 36 the **ciliary** mussel by the increase of the flexibility in the **laser - ablated** areas.

SUBSTITUTE SHEET (RULE 26)

It is yet another objective of the present invention to **laser ablated sclera** tissue "gap" will be filled in by the sub-conjunctival tissue 29 within few days...

...surgery. This filled in sub-conjunctival tissue is much 30 more flexible than the original **sclera** tissue. Therefore the filled-in gap in the 31 **sclera** area will cause the underneath **ciliary** body to contract or expand the 32 zonular fiber connected to the lens when the...

11/5,K/8 (Item 8 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00789738 **Image available**

TREATMENT OF TISSUE BY APPLICATION OF ENERGY AND DRUGS

TRAITEMENT DES TISSUS PAR L'APPLICATION D'ENERGIE ET DE MEDICAMENTS

Patent Applicant/Assignee:

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US (Residence), US (Nationality)

Inventor(s):

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Legal Representative:

SWERNOFSKY Steven A (agent), Swernofsky Law Group, P.O. Box 390013,
Mountain View, CA 94039-0013, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200122897 A1 20010405 (WO 0122897)

Application: WO 2000US26831 20000928 (PCT/WO US0026831)

Priority Application: US 99407658 19990928

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A61B-018/18

International Patent Class: A61N-005/02; A61N-005/06; A61N-007/02

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Bad Date

Fulltext Word Count: 12681

English Abstract

The invention provides a method and system for treating disorders parts of the body. A particular treatment can include one or more of, or some combination of ablation, nerve modulation, three-dimensional tissue shaping, drug delivery, mapping, stimulating, shrinking and reducing strain on structures by altering the geometry thereof and providing bulk to particularly defined regions. The particular body structures or tissues can include one or more of, or some combination of reions, including the bladder, esophagus, vagina, penis, laryns, pharynx, aortic arch, abdominal aorta, thoracic aorta, large intestine, small intestine, sinus, auditory canal, uterus, vas deferens, trachea and all associated sphincters. Types of energy that can be applied include radiofrequency, laser, microwave, infrared waves, ultrasound or some combination thereof. Types of substances that can be applied include pharmaceutical agents such as analgesics, antibiotics and anti-inflammatory drugs, bulking agents such as biologically nonreactive particles, cooling fluids or dessicants such as liquid nitrogen for use in cryo-based treatments.

Legal Status (Type, Date, Text)

Publication 20010405 A1 With international search report.

Publication 20010405 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Examination 20010823 Request for preliminary examination prior to end of 19th month from priority date

Claim

... from childbirth and related stresses can cause the relative tone of the bladder and accessory **muscles** to weaken, which, in turn, causes an impaired ability to retain urine. Weight gain and overall deterioration of **muscle** tone can cause increased abdominal pressure which overcomes sphincter resistance. Nerve pathways that cause the...

...of the urethra can change with age, causing poor urinary control. Injury to the detrusor **muscles** or to the trigone area also results in impaired urinary continence. These factors do not...

...bladder to alter the urethrovesical angle and resuspend the bladderneck, (2) manipulation of the detrusor **muscles**, (3) The use of a catheter to apply radio frequency (RF) and other types of I O energy to **ablate** tissue in the body (such as heart **muscle** tissue) is known in the art of cardiac treatment. However, known systems using RF and...

...reach all of the desired treatment areas, such as the entire surface of the detrusor **muscles**. While the use of a catheter to deploy energy is known, none is disposed to problem in the known art involves **removal** of tissue and substances used in treatment. Known systems do not provide for **removal** of excess substances used in treatment such as cooling fluids, collagen or bulking substances. Similarly, known systems do not provide for **removal** of substances that hinders or otherwise obstructs the healing process such as pus, purulent discharges...

...the flow of bodily fluids and gases into an area of the body where tissue **ablation** is taking treatment of diseased tissue. Accordingly, it would be advantageous to provide a method...

...the body. A particular treatment can include one or more of, or some combination of **ablation**, nerve modulation, three-dimensional tissue shaping, drug delivery, mapping, stimulating, shrinking (by creation of a

...effect changes in the target tissue. Types of energy that can be applied include radiofrequency, **laser**, microwave, infrared waves, ultrasound or some combination thereof. Types of substances that can be applied...is subject to a stricture;

Any biologic operational structure, such as a gland, or a muscle or other organ (such as the colon, the diaphragm, the heart, a uterus, a kidney...

...cells, a set of displastic cells, a surface of a body structure, (such as the **sclera**) a tumor, or a layer of cells (such as fat, **muscle** or skin).

Any biologic cavity or space or the contents thereof, such as a cyst...or other orifice by operation of selective electrodes. Different patterns of submucosal lesions, mucosal lesions, **ablated**, bulked, plumped, desiccated or necrotic regions can be created by selectively operating different electrodes. Production...

...cells, a set of displastic cells, a surface of a body structure, (such as the **sclera**) a tumor, or a layer of cells (such as fat, **muscle** or skin). Any biologic cavity or space or the contents thereof, such as a cyst...

...the treatment balloon can be brought in contact with the entire interior surface of the **muscles**, including the detruser **muscles** and the top of the bladder. In this way, it is possible to treat the...or other orifice by operation of selective electrodes. Different patterns of submucosal lesions, mucosal lesions, **ablated**, bulked or plumped, desiccated or necrotic regions can be created by selectively operating different electrodes...

...than about 10% NaCl, which locally enhances tissue conductivity, resulting in a selective areas of **ablation** 1 5 or creation of thermal lesions at or below the surface of the tissue...

11/5,K/9 (Item 9 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00459628 **Image available**

METHOD AND APPARATUS FOR INSERTING A GLAUCOMA IMPLANT IN AN ANTERIOR AND POSTERIOR SEGMENT OF THE EYE

TECHNIQUE D'INSERTION D'IMPLANT DANS LES SEGMENTS ANTERIEUR ET POSTERIEUR DE L'OEIL D'UN PATIENT ATTEINT DE GLAUCOME ET APPAREIL AFFECTANT

Patent Applicant/Assignee:

PHARMACIA & UPJOHN COMPANY,

Inventor(s):

BAERVELDT George,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9850092 A1 19981112

Application: WO 98US8951 19980504 (PCT/WO US9808951)

Priority Application: US 97853076 19970508

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD
MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ
VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH
CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML
MR NE SN TD TG

Main International Patent Class: A61M-005/00

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 12343

English Abstract

A method of treating glaucoma in an eye utilizing an implant (10) is disclosed. The implant (10) comprises an elastomeric plate (38) having first surfaces, second surfaces, and a non-valved elastomeric drainage tube (41). The plate (38) is positioned over a sclera of said eye beneath Tenon's capsule such that a portion of the plate extends into the anterior segment of the eye. The first end of said elastomeric drainage tube (41) is open to said second surface of said plate (38). The second end of said drainage tube (41) is tunneled through the sclera, the cornea, and inserted into the anterior chamber of said eye. Fluid communication is provided between said anterior chamber, and a scar tissue bleb which forms around said implant (10). Preferably a portion of the scar tissue bleb extends into the anterior segment of the eye, and a portion of the scar tissue bleb extends into the posterior segment of the eye.

Detailed Description

... 12. A portion of the plate 38 is placed below the superior and lateral rectus **muscles** 29 or extending under one or more of the rectus **muscles**

29. However, depending upon the surface area of the plate 38, it is possible that no portion of the plate 38 will extend below any of the rectus **muscles** 29. The plate 38 can be sutured to the **sclera** 14, or alternatively, to the rectus **muscles** 29 if the **sclera** 14 is thinned by disease, with the suture holes 60,62. Preferably, nonabsorbable nylon sutures...

...8-0 nylon or polypropylene sutures. The drainage tube 41a is tunneled out through the **sclera** 14 and the cornea 16 beneath Tenon's capsule 44 and in through an incision...some of the fluid pressure until the bleb has formed and the temporary suture is **removed** or absorbed by the body. In one embodiment, the temporary suture is a dissolvable suture. In an alternate, but not preferred, embodiment, the temporary suture is **removed** during a secondary procedure, such as a surgical procedure or an ophthalmic **laser** procedure. Both procedures are known to those of skill in the art.

Advantageously, the insertion...

00439717 **Image available**

DEVICE FOR USE IN THE EYE

DISPOSITIF POUR L'OEIL

Patent Applicant/Assignee:

 BIOCOMPATIBLES LIMITED,
 ALLAN Bruce Duncan Samuel,
 MUIR Andrew Victor Graham,
 JONES Stephen Alister,

Inventor(s):

 ALLAN Bruce Duncan Samuel,
 MUIR Andrew Victor Graham,
 JONES Stephen Alister,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9830181 A1 19980716
Application: WO 98GB85 19980112 (PCT/WO GB9800085)
Priority Application: GB 97390 19970110

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD
MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US
UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE
CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML
MR NE SN TD TG

Main International Patent Class: A61F-009/007

Publication Language: English

Fulltext Availability:

 Detailed Description
 Claims

Fulltext Word Count: 11900

English Abstract

A glaucoma filtration implant comprises a generally tubular body section having an oblong external diameter formed of a continuous convex curve. The device preferably has a flow resistance means provided by a portion of the internal lumen having a reduced diameter. For instance a flow resistance means may have a length of up to 5000 'mu'm and a diameter in the range 15 to 50 'mu'm, the diameter being selected so as to achieve a pressure drop along the resistance means in the range 5 to 15 mm Hg. Preferably the internal conduit for flow of liquid also includes a removable flow inhibitor, which can be removed after implantation by a laser, for instance an ophthalmic YAG laser. The device is made of biocompatible materials.

Detailed Description

... wall, 72 it may alternatively be formed of the relatively hard reinforcing material 71. The **laser ablatable** material may be formed of porous material, which may provide the desired permeability. Suitable materials which are **laser ablatable** are acrylic polymers. The material should preferably be formed of a bulk biocompatible material in order that, after **laser ablation**, any material of the plug which becomes exposed to tissue or fluid, should not generate...

...anterior conjunctival scarring. The location relative to the superior rectus 78 and horizontal rectus 79 **muscles** is indicated in Figure 10. The intended filtration area 80, into which intraocular fluid drains...

...the implant, once the viscoelastic has been filled into the anterior

chamber, the partial thickness **scleral** incision 81 is made using a shouldered knife. Then a crescent knife is used for...

11/5,K/11 (Item 11 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00381561 **Image available**

FIBER OPTIC SLEEVE FOR SURGICAL INSTRUMENTS
MANCHON A FIBRES OPTIQUES POUR INSTRUMENTS CHIRURGICAUX

Patent Applicant/Assignee:

REYNARD Michael,

Inventor(s):

REYNARD Michael,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9722304 A1 19970626

Application: WO 95US16936 19951221 (PCT/WO US9516936)

Priority Application: US 95575829 19951220

Designated States: AM AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GE HU IS JP

KE KR LT LU LV MX NO NZ PL PT RO RU SG SI SK TT UA VN AT BE CH DE DK ES

FR GB GR IE IT LU MC NL PT SE

Main International Patent Class: A61B-017/32

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 7025

English Abstract

A fiber optic integrated phacoemulsification system is disclosed comprising surgical handpieces (1) for cataract surgery which incorporate fiber optic bundles (4) that transmit visible light to enhance visualization by intraocular illumination. Patient safety is improved by the oblique lighting to the retina, thereby reducing the necessity of direct coaxial light from the surgical microscope. The fiber optic bundles (4) enable the application of laser energy or visible light and permit endoscope visualization of intraocular structures either through the surgical handpiece (1) or through an end piece attachment (3).

Detailed Description

... Chloride (309 nm wavelength) , Argon Blue (488 nm wavelength) , and Argon Green (514 nm wavelength) .

Laser ablation of **ciliary** body processes responsible for producing excessive intraocular fluid, and for creation of a drainage fistula through the **sclera** , permits control of elevated intraocular pressure and glaucoma, **Laser** photocoagulation of **ciliary** body processes for treatment of glaucoma used in the present art involves external treatment through...

...iridectomies. The effectiveness of this treatment is significantly limited because only a small number of **ciliary** processes can be treated. In the presently preferred embodiment, the endolaser and endoscopic capabilities permit treatment of the **ciliary** processes for at least 180 degrees, allowing for an enhanced **laser** therapeutic effect.

Manual methods used for anterior lens capsulotomy have inherent disadvantages that includes inadvertent...

11/5,K/12 (Item 12 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00253929

TREATMENT OF PRESBYOPIA AND OTHER EYE DISORDERS
TRAITEMENT DE LA PRESBYTIE ET D'AUTRES TROUBLES OCULAIRES

Patent Applicant/Assignee:

SCHACHAR Ronald A,

Inventor(s):

SCHACHAR Ronald A,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9402084 A1 19940203

Application: WO 93US6533 19930713 (PCT/WO US9306533)

Priority Application: US 92913486 19920715

Designated States: AT AU BB BG BR BY CA CH CZ DE DK ES FI GB HU JP KP KR KZ

LK LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA VN AT BE CH DE DK ES FR

GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: A61F-002/14

International Patent Class: A61F-02:16

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 8127

English Abstract

Presbyopia and hyperopia are treated by increasing the amplitude of accommodation by increasing the effective working distance of the ciliary muscle. To this end, the sclera over the ciliary body is expanded by suturing thereto a relatively rigid band slightly larger than the sclera, surgical alloplasty, or by weakening the sclera by surgery or treatment with enzymes, heat or radiation, which then expands due to intraocular pressure. The scleral expansion band (102) comprises an anterior (108) and posterior (106) rim, and a web (104) extending between the rims. The band may be provided with one or more holes to assist in suturing. The same goal is achieved by shortening the zonules by application of heat or radiation or by surgery. Presbyopia is arrested by inhibiting the continued growth of the crystalline lens by application of heat, radiation or antimitotic drugs to the epithelium of the lens. Primary open angle glaucoma and/or ocular hypertension can be prevented and/or treated by increasing the effective working distance of the ciliary muscle.

Detailed Description

... P) pi 0) rt m m En :Jo (D l< m a region of the **sclera** adjacent to the **ciliary** body, either topically or by injection, to effect the desired weakening of the **sclera** , Other antimitotic pharmaceutical

...daunorubicin, doxorubicin, cytarabine, the vinca alkaloids and the like, can also be applied to the **sclera** to weaken it and permit it to be expanded by the intraocular pressure, Alternatively, the **sclera** in the region of the **ciliary** body may be weakened by surgical means. The **sclera** may be thinned or weakened by the surgical **removal** of a portion of its collagenous substance, as, for example by **ablating** a portion of the thickness of the

sclera , This thinning can be accomplished by paring or by abrading the surface or by **ablating** the surface with **laser** irradiation. The **sclera** can also be weakened by incisions carefully placed at appropriate angles in the region overlying the **ciliary** body. The diameter of the **sclera** overlying the **ciliary** body can also be increased by making a complete periglobular incision and grafting into the incision appropriate tissue and/or physiologically acceptable structural material to increase the dimensions of the **sclera** , Thus an artificial **scleral** alloplant made of purified human collagen may be engrafted into such an incision. other known...

...engrafting into such an incision. It is also possible to excise a small strip of **sclera** from the region overlying the **ciliary** body and replace it with a **scleral** alloplant as described above to provide an appropriate increase in the diameter of this region. Alternatively the **sclera** in the region overlying the **ciliary** body can be weakened by irradiation with a **laser** beam to decompose partially the collagen fibers, Suitable **lasers** include those conventionally used in ocular surgery such as carbon 14 aq upo SuaT W44...are appropriate for preventing further lens growth, Thus, the epithelial cells may be heated by **laser** radiation or ultrasonic irradiation, or inactivated by **laser** irradiation with a **laser** capable of directly disrupting chemical bonds within the structures of the cells, Sharply focused **laser** beams or irradiation with microscopic diode **lasers** positioned close to the equator of the lens are suitable for applying this radiation, Irradiation...

...they might provoke the formation of cataracts, Surgical methods that work more directly on the **ciliary muscle** may also be used to increase the effective itself may be shortened, for example by scarring induced by irradiation with suitable **laser** beams or beams of ionizing or non-ionizing radiation such as ultrasound or electron or proton beams or x-rays, The effective working range of the **muscle** may also be increased by moving its insertions to increase the distance between them. The **ciliary muscle** is inserted anteriorly into the **scleral** spur and posteriorly ...to move apart from the complementary insertion will increase the effective working range of the **ciliary muscle** and improve the amplitude of accommodation according to the invention, Selective scarring of adjacent tissue planned to cause retraction of either insertion of the **ciliary muscle** is effective to accomplish this result, The scarring can be accomplished by thermal or radiative...

...is a direct result of the decrease in distance between the lens equator and the **ciliary muscle** and the resulting linear decrease in the effective pull of the **ciliary muscle** , Since the **ciliary muscle** inserts into the trabecular meshwork, the decrease in pull will decrease the size of the...

...to narrower pores and/or smaller trabecular meshwork, so that when the ability of the **ciliary muscle** to exert force declines, after the age of 40 or thereabouts, they tend to develop...

11/5,K/13 (Item 13 from file: 349).
DIALOG(R) File 349:PCT FULLTEXT
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00246608 **Image available**
APPARATUS AND METHOD FOR PERFORMING EYE SURGERY

APPAREIL ET PROCEDE DE CHIRURGIE OCULAIRE

Patent Applicant/Assignee:

PREMIER LASER SYSTEMS INC,

Inventor(s):

COLVARD Michael,
AMIRKHANIAN Varouj D,
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COZEAN Colette,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9320895 A1 19931028

Application: WO 93US3364 19930401 (PCT/WO US9303364)

Priority Application: US 92866562 19920410

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SE

Main International Patent Class: A61N-005/06

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 10027

English Abstract

An optical probe configured for insertion into the anterior chamber of an eye, adjacent to the cataractous lens of the eye, comprises an optical source (60) and an optical waveguide (100) connected to deliver optical radiation from the source to the probe. The optical radiation is in the form of pulses which have a repetition rate, a wavelength and an optical energy selected to cause significant ablation-induced damage to the lens within an ablation zone, and significant acoustic-induced damage to the lens within an acoustic zone, such that the acoustic zone is significantly larger in size than the ablation zone. The acoustic zone is created by generating shock waves which radiate from the ablation zone and propagate through hard nuclear material of the cataractous lens, such that the nuclear material is microfractured. The microfractured lens material is significantly more reactive to the laser pulses than prior to microfracturing, and the hard nuclear material readily disintegrates into small fragments in response to application of laser pulses.

Detailed Description

... piece 128 of the brass ferule housing 126, The user selects an embodiment of the **laser** probe that is desired, and slips a second piece of PVC tubing 195 coaxially over...

..details have been omitted for clarity of understanding. A tough outer membrane known as the **sclera** 200 surrounds all of the eye except the portion ...by the cornea 202,, the thin transparent membrane which covers the iris 204, Outside the **sclera** 200 is a layer of tissue called conjunctiva 206, The cornea 202 merges with into the **sclera** 200 at a juncture referred to as the limbus 208. The **ciliary** body 210 begins at the limbus 208 and extends along the interior of the **sclera** 200 and becomes the choroid 212. The choroid 212 is the vascular membrane which extends...

...of the eye which is filled with aqueous humor 218, The trabecular mesh work 220 **removes** excess aqueous humor 218 from the anterior chamber 214 through Schlemm Is canal 2 2...

Set	Items	Description
S1	735	PRESBYOP? OR FARSIGHT? OR FAR()SIGHT?
S2	122810	LASER? ?
S3	778127	ABLAT? OR DESTROY? ? OR DESTRUCT? OR ELIMINAT? OR REMOV?
S4	1539	SCLERA?
S5	46901	CILIAR? OR MUSCL?
S6	14	S2(S)S3(S)S4(S)S5
S7	5	S6 AND IC=A61B
S8	9	S6 NOT S7
S9	14	S6
S10	14	IDPAT (sorted in duplicate/non-duplicate order)
S11	13	IDPAT (primary/non-duplicate records only)

? show files

File 348:EUROPEAN PATENTS 1978-2002/Dec W03

(c) 2002 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20030102,UT=20021226

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9/5/1 (Item 1 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)
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10280898 BIOSIS NO.: 199698735816

Vascular consequences of retinectomy.

AUTHOR: Bourke Robert D(a); Cooling Robert J

JOURNAL: Archives of Ophthalmology 114 (2):p155-160 1996

ISSN: 0003-9950

DOCUMENT TYPE: Article

LANGUAGE: English

ABSTRACT: Objective: To define the vascular sequelae of retinectomy.

Design: Clinical and angiographic survey of patients who had undergone retinectomy procedures. Patients: Twenty consecutive patients with ambulatory vision and attached posterior retina after retinectomy procedures underwent ophthalmic examination, including retinal biomicroscopy, indirect ophthalmoscopy with **scleral** indentation, and peripheral retinal fluorescein angiography. Results: Ten eyes (50%) showed anterior retinal neovascularization (NV), with vessels derived from the **ciliary** body or posterior retina. Neovascularization occurred in residual anterior retina adjacent to the retinectomy, in detached anterior retina demarcated by **laser** in quadrants not involved by retinectomy, and in fibrinous membranes extending anterior to the retinectomy edge. This was associated with postoperative vitreous hemorrhages in two patients. Iris NV and inferior iridectomy occlusion were strongly associated with retinal NV (Fisher's exact test, $P < .005$). No patient had neovascular glaucoma or optic disc NV during a median follow-up of 250 days (range, 121 to 465). Conclusions: Retinectomy may have profound secondary effects on ocular vascular circulation, resulting in retinal NV in association with iris NV, occlusion of inferior iridectomies, and vitreous hemorrhage. Complete intraoperative **removal** of residual anterior retina to the ora serrata in quadrants involved by retinectomy, combined with prophylactic retinal **laser** treatment from the vitreous base to the ora in the remaining quadrants, is recommended to prevent the development of retinal NV and its associated complications. Results: Average cup volume, variability of cup volume estimates, and variability in the direction of imaging correlated significantly among the patients with glaucoma (multiple $R^2 = .95$; $P < .001$). Average rim volume, variability of rim volume estimates, variability in the direction of imaging, and variability in the mean height of the contour line also correlated significantly (multiple $R^2 = .88$; $P = .03$). In the rabbit eye, the cup volume and the rim volume differed significantly among the three image series (analysis of variance, $P < .001$ and $P = .04$, respectively). Conclusion: Misalignment between the patient and the **laser** scanner may account for significant variability with the Heidelberg Retina Tomograph.

9/5/2 (Item 2 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)
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10116089 BIOSIS NO.: 199698571007

Clinically successful contact transscleral krypton laser

cyclophotocoagulation: Long-term histopathologic and immunohistochemical

autopsy findings.

AUTHOR: Kivela Tero(a); Puska Paivi; Raitta Christina; Immonen Ilkka;
Tarkkanen Ahti

JOURNAL: Archives of Ophthalmology 113 (11):p1447-1453 1995

ISSN: 0003-9950

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Objective: To report long-term histopathologic findings 10 months after contact transscleral krypton cyclophotocoagulation. Methods: The tissue response in a successfully treated eye was analyzed by light microscopy and a panel of 11 antibodies to epithelial, mesenchymal, and inflammatory cells. Results: A 75-year-old man with uncontrolled angle recession glaucoma was treated with transscleral contact krypton cyclophotocoagulation (17 burns, 3.5 J each) 10 months before his death. The intraocular pressure fell from 28 to 17 mm Hg 6 months after therapy. Confluent scars straddled the posterior pars plicata and the anterior pars plana. The **ciliary** processes were destroyed, but the **sclera** and zonules were intact. Vimentin and cytokeratin 8 and 18 persisted in the degenerated **ciliary** epithelium. The inner connective-tissue layer and the **ciliary muscle** had atrophied, as shown with antibodies to the HNK-1 epitope, desmin, and alpha-smooth-**muscle** actin. Macrophages with phagocytized pigment and single T cells were present instead. No unusual inflammatory infiltrate was present in the choroid of either eye. Conclusions: Clinically effective **ablation** of **ciliary** processes is achieved with contact krypton **laser**. Little chronic inflammation and no signs of sympathetic ophthalmia were present. Atrophy of the **ciliary muscle** may reduce accommodative capacity in younger patients undergoing cyclophotocoagulation.

9/5/3 (Item 3 from file: 5)

DIALOG(R)File 5:BIOSIS Previews(R)

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09794600 BIOSIS NO.: 199598249518

Control of intra-ocular pressure by trans- scleral diode laser ablation of the ciliary body in advanced refractory glaucoma.

AUTHOR: Bloom P A; Sharma K; Tsai J; Miller M H; Khaw P T; Rice N S;
Hitchings R A

JOURNAL: Investigative Ophthalmology & Visual Science 36 (4):pS837 1995

CONFERENCE/MEETING: Annual Meeting of the Investigative Ophthalmology and Visual Science Fort Lauderdale, Florida, USA May 14-19, 1995

ISSN: 0146-0404

RECORD TYPE: Citation

LANGUAGE: English

9/5/4 (Item 4 from file: 5)

DIALOG(R)File 5:BIOSIS Previews(R)

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09741045 BIOSIS NO.: 199598195963

Two types of vasodilatation in cat choroid elicited by electrical stimulation of the short ciliary nerve.

AUTHOR: Nakanome Yoshinori; Karita Keishiro(a); Izumi Hiroshi; Tamai Makoto
JOURNAL: Experimental Eye Research 60 (1):p37-42 1995
ISSN: 0014-4835
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Choroidal blood vessels are innervated by three types of vasoactive nerve fibers: sympathetic, parasympathetic and sensory fibers in the short **ciliary** nerve. We investigated whether or not stimulation of the short **ciliary** nerve elicits vasodilatation. In 30 cats (2-4 kg) anesthetized with pentobarbital sodium (30 mg kg⁻¹, i.v.) and artificially ventilated (pancuronium bromide; 0.2 mg kg⁻¹ hr⁻¹, i.v.), choroidal blood flow was continuously measured trans-**sclerally** with a **laser** Doppler flowmeter. The lateral short **ciliary** nerve was stimulated electrically (0-50 V, 2 msec, 20 Hz, for 10 sec) at two sites, one close to the eyeball (site P) and the other between the main and accessory **ciliary** ganglia (site Q). Choroidal vasodilatation occurred with a high incidence (80%) in response to electrical stimulation of the short **ciliary** nerve at site P or Q, when cats had been treated with the alpha-adrenergic blocking agent phentolamine (3 mg kg⁻¹) to **eliminate** sympathetic vasoconstrictor effects. A long-lasting vasodilatation was observed during 1% capsaicin application to the nerve bundle at site P, but not at site Q and capsaicin nearly abolished the vasodilatation evoked by stimulation at site P, but not that evoked from site Q. Vasodilatation elicited by electrical stimulation at site P or Q was not sensitive to the ganglion-blocking agent hexamethonium (3 mg kg⁻¹, i.v.). It is suggested that two different mechanisms underlay the evoked blood flow increases in the choroid: one is a capsaicin-sensitive vasodilatation induced by antidromic activation of sensory fibers and the other is a capsaicin-insensitive vasodilatation mediated by orthodromic activation of the post-ganglionic parasympathetic nerve fibers.

9/5/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2003 BIOSIS. All rts. reserv.

08164703 BIOSIS NO.: 000093140151
TRANSSCLERAL DIODE LASER CYCLOPHOTOAGULATION IN RABBIT EYES
AUTHOR: IIJIMA M; OOKI R; NOYROI K
JOURNAL: JPN J CLIN OPHTHALMOL 46 (1). 1992. 79-84. 1992
FULL JOURNAL NAME: Japanese Journal of Clinical Ophthalmology
CODEN: RIGAA
RECORD TYPE: Abstract
LANGUAGE: JAPANESE

ABSTRACT: We attempted cyclophotocoagulation in pigmented rabbit eyes with diode **laser** at 810 nm. Preliminary experiments with dissected **sclera** showed better transmission for diode than argon or krypton **lasers**. Cyclophotocoagulation was then performed in 12 rabbit eyes either through pars plicata or pars plana. In both groups, the intraocular pressure immediately decreased by about 10 mmHg with a tendency to recover one week later. The intraocular pressure remained 5 mmHg less than the pretreatment value for 4 to 20 weeks. Histologically, there was **destruction** of the **ciliary** body and disruption of the epithelial

layers after pars plicata coagulation. Perforation of the **ciliary** body was frequent after pars plicata coagulation, to be replaced later by fibroblasts. This feature seemed to be the cause of the persistent intraocular pressure reduction after pars plana photocoagulation.

9/5/6 (Item 6 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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07438666 BIOSIS NO.: 000091044655

TRANSSCLERAL APPLICATION OF A SEMICONDUCTOR DIODE LASER

AUTHOR: PEYMAN G A; NAGUIB K S; GAASTERLAND D

JOURNAL: LASERS SURG MED 10 (6). 1990. 569-575. 1990

FULL JOURNAL NAME: Lasers in Surgery and Medicine

CODEN: LSMED

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: We used a diode **laser** with an output power of 1 W through a fiberoptic light pipe (200 .mu.m diameter) to deliver **laser** energy through the **sclera** of pigmented rabbits. **Ciliary** body **destruction** occurred with energy levels of 300-400 mW and exposure time of 0.5 sec. Retinal photocoagulation was achieved with energy levels of 200-500 mW in 0.5 sec. Histologic examination of acute lesions demonstrated thermal **destruction** of **ciliary** body processes and retina. Chorioretinal scar formation was observed clinically and histologically within 2-3 weeks. Our data indicate that the transcleral diode **laser** may be used for **destruction** of the **ciliary** body processes or peripheral retinal coagulation in pigmented eyes.

9/5/7 (Item 7 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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07254134 BIOSIS NO.: 000090034010

PROBE PLACEMENT AND POWER LEVELS IN CONTACT TRANSSCLERAL NEODYMIUM-YAG CYCLOPHOTOCOAGULATION

AUTHOR: ALLINGHAM R R; DE KATER A W; BELLOWS A R; HSU J

JOURNAL: ARCH OPHTHALMOL 108 (5). 1990. 738-742. 1990

FULL JOURNAL NAME: Archives of Ophthalmology

CODEN: AROPA

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Transscleral cyclophotocoagulation using a free-running, thermal-mode neodymium:YAG **laser** with a 2.2-mm-diameter sapphire-tipped contact probe was performed on 27 enucleated human eyes to investigate the effect of probe placement and power levels. We concluded from gross, light, and scanning electron microscopic examinations that a tissue **destructive** effect on **ciliary** body and epithelium was produced by positioning the anterior edge of the probe tip 0.5 to 1.0 mm from the visible limbus using a 5- to 9-W power setting for 0.7 second. An 11-W power setting resulted in extensive loss of anatomic integrity of the

ciliary body. Limbal probe placement produced significant iris and lens damage while positioning the probe 1.5 mm posterior to the limbus affected primarily pars plana. Damage to the **sclera** was not observed using this method of cyclophotocoagulation.

9/5/8 (Item 8 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

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07035977 BIOSIS NO.: 000089117530

EYE WALL RESECTION IN THE MANAGEMENT OF UVEAL NEOPLASMS

AUTHOR: PEYMAN G A; GREMILLION C M

JOURNAL: JPN J OPTHALMOL 33 (4). 1989. 458-471. 1989

FULL JOURNAL NAME: Japanese Journal of Ophthalmology

CODEN: JJOPA

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Management of intraocular tumors, specifically uveal melanoma, is a matter of controversy. The treatment of these ocular neoplasms varies from observation to enucleation, irradiation (cobalt plaque and proton-helium particle) and eye wall resection. Over the last 18 years, we have developed two techniques for surgical resection of intraocular tumors. An encircling **laser** photocoagulation and limited scatter photocoagulation with **laser** precede both procedures. The operation is performed under hypotensive anesthesia in both techniques. The external approach is used for anteriorly located tumors (**ciliary** body and anterior choroidal lesions) and makes use of an eye basket to stabilize the operation area. A partial dissection of the **sclera** is performed, then the tumor is **removed** en bloc with the **sclera**, choroid and retina. The remaining **sclera** is resutured to cover the resected area. A modification of this technique is used for a limited excision of choroidal and retinal tissue for the purpose of biopsy and tissue analysis. The internal approach (developed four years ago) has been successfully used for **removal** of malignant and benign lesions located posterior to the equator and around the optic nerve. This technique uses vitrectomy instrumentation in addition to endolaser. Detailed surgical technique and results achieved in both procedures are described.

9/5/9 (Item 9 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

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06153467 BIOSIS NO.: 000085116619

THE BALLOON PROCEDURE WITH TEMPORARY BUCKLING AND NON-DRAINAGE

AUTHOR: KREISSIG I

JOURNAL: FOLIA OPTHALMOL JPN 38 (11). 1987. 1687-1696. 1987

FULL JOURNAL NAME: Folia Ophthalmologica Japonica

RECORD TYPE: Abstract

LANGUAGE: JAPANESE

ABSTRACT: The balloon procedure involves treating a detachment with a temporary buckle in the area of the retinal break without drainage of subretinal fluid. The balloon requires no sutures and is withdrawn after a week. Sustained reattachment depends upon the cryo or **laser**

coagulation induced retinal adhesions around the break. The balloon procedure is limited to detachments caused by a single break or a group of breaks not extending more than 6 mm at the equator. Under these conditions, and with some experience with non-drainage procedures on the surgeon's part, it can be applied to small or total detachments, old or aphakic detachments, detachments with a break under a **muscle**, to prevent diplopia, as reoperation in a failing buckle operation or as reoperation in cases of diathermized **sclera** with buried miplants. As to complications, there are practically none, since the balloon is withdrawn after one week. In 6% of the present cases the retina redetached after balloon **removal** and reattachment was obtained by rebuckling. The final results with the balloon operation after reoperation were: reattachment in 92%, final failure in 8%. The balloon operation is especially suited for treating the elderly or infirm patient; it can be done under local or topical anesthesia and inflicts minimal trauma on the eye.

9/5/10 (Item 10 from file: 5)

DIALOG(R)File 5:BIOSIS Previews(R)

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05755191 BIOSIS NO.: 000084103598

NEODYMIUM-YAG TRANSSCLERAL CYCLOCOAGULATION IN RABBIT EYES

AUTHOR: DEVENYI R G; TROPE G E; HUNTER W H

JOURNAL: BR J OPHTHALMOL 71 (6). 1987. 441-444. 1987

FULL JOURNAL NAME: British Journal of Ophthalmology

CODEN: BJOPA

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Transscleral ruby cyclocoagulation has been successfully used to lower intraocular pressure. The recent commercial availability of Nd-YAG **laser** with a thermal mode provides a possible alternative by which to perform this procedure. We treated one eye of seven pigmented rabbits using the thermal mode of the Nd-YAG **laser**. The intraocular pressures were followed up for three months. The treated eyes had significantly lower mean intraocular pressures than the untreated contralateral eyes ($p < 0.001$). Moreover, the decrease was sustained over the three month duration of the study. Pathological examination revealed very selective **destruction** of the **ciliary** processes, with sparing of the overlying **ciliary muscle**, **sclera** and conjunctiva. The potential value of this mode of therapy for use in patients with glaucoma is discussed.

9/5/11 (Item 1 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

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02645207 Genuine Article#: LT372 Number of References: 13

Title: ENERGY-LEVELS NEEDED FOR CYCLOPHOTOCOAGULATION - A COMPARISON OF TRANSSCLERAL CONTACT CW-YAG AND KRYPTON LASERS IN THE RABBIT EYE

Author(s): IMMONEN I; SUOMALAINEN VP; KIVELA T; VIHHERKOSKI E

Corporate Source: HELSINKI UNIV HOSP, DEPT OPHTHALMOL, HAARTMANINKATU

4C/SF-00290 HELSINKI//FINLAND/

Journal: OPHTHALMIC SURGERY, 1993, V24, N8 (AUG), P530-533

ISSN: 0022-023X

Language: ENGLISH Document Type: ARTICLE

Geographic Location: FINLAND

Subfile: SciSearch; CC CLIN--Current Contents, Clinical Medicine

Journal Subject Category: OPHTHALMOLOGY; SURGERY

Abstract: The energy levels needed for cyclophotocoagulation using either transscleral contact krypton or cw-YAG **lasers** were compared in pigmented rabbits. The same transscleral **laser** probe was used for both **lasers**. With the krypton **laser**, 0.25 J of energy caused macroscopically detectable lesions, and 1.5 J led to widespread **destruction** of the **ciliary** body. With the cw-YAG **laser**, the first detectable lesions were produced at 0.5 J. Similarly, at higher energies, twice as much energy was required using the cw-YAG as compared with using the krypton **laser** to produce comparable lesions. Histologically, lesions of the same macroscopic severity made with the two **lasers** were similar. We conclude that the transscleral contact krypton **laser** is an efficient instrument for cyclophotocoagulation. Although these results may not be directly applied to human eyes, it appears that the poorer **scleral** transmission of the krypton beam is offset by its higher level of absorption in the pigmented epithelium of the **ciliary** body.

9/5/12 (Item 1 from file: 73)

DIALOG(R)File 73:EMBASE

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06583017 EMBASE No: 1996247633

Value of ultrasound biomicroscopy for ciliodestructive procedures

Brancato R.; Carassa R.G.

Ophthalmology/Visual Sciences Dept., Scientific Institute H. S. Raffaele, University of Milano, via Olgettina 60, Milano 20132 Italy

Current Opinion in Ophthalmology (CURR. OPIN. OPHTHALMOL.) (United States) 1996, 7/2 (87-92)

CODEN: COOTE ISSN: 1040-8738

DOCUMENT TYPE: Journal; Review

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Ciliodestructive procedures are commonly performed by the transscleral approach because **ciliary** processes are seldom visible. Thus the **ablative** energy is directed toward an 'invisible' target whose position can only be estimated on the basis of experimental data. Ultrasound biomicroscopy has been recently introduced in ophthalmologic practice. This high-frequency ultrasound B-scan method gives real-time images of the subsurface structures of the anterior portion of the living eye at microscopic resolution. Ultrasound biomicroscopy perfectly visualizes the **ciliary** body and its surrounding structures and is a promising complementary tool for ciliodestructive procedures. The system has been used to image early and late **ciliary** body alterations after transscleral cyclophotocoagulation, to establish the position of the **ciliary** body to ensure correct **laser** probe placement, to locate **ciliary** body residuals for retreatment, and to rule out **scleral** damage after the procedure. An **apparatus has been designed for simultaneous contact cyclophotocoagulation and ultrasound biomicroscopy analysis**. A prospective randomized clinical trial is now needed to clarify the influence of ultrasound biomicroscopy on the success rate of ciliodestructive procedures.

9/5/13 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE
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06328852 EMBASE No: 1995365654

Histopathologic observations on human eyes following neodymium:YAG laser cyclophotocoagulation for glaucoma

Ferry A.P.; King M.H.; Richards D.W.; Eagle R.C.; Stamper R.; Kaufman P.; Gaasterland D.; Ferry A.

Department of Ophthalmology, Medical College of Virginia, Virginia Commonwealth University, Richmond, VA United States

Transactions of the American Ophthalmological Society (TRANS. AM. OPHTHALMOL. SOC.) (United States) 1995, 93/- (315-336)

CODEN: TAOSA ISSN: 0065-9533

DOCUMENT TYPE: Journal; Conference Paper

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Purpose: Although Nd:YAG **laser** cyclophotocoagulation has been extensively used for nearly a decade in treatment of severe glaucoma, there have been remarkably few reports (each of them extremely brief) of histopathological examination of glaucomatous human eyes that had been so treated. We undertook this study to provide further details regarding the nature of the lesions produced in this type of **ciliary ablation**. **Methods:** We chose three representative cases in which a glaucomatous human eye had been subjected to Nd:YAG cyclophotocoagulation, and was subsequently enucleated. To better understand the temporal evolution of the lesions, we selected eyes that were enucleated 1 day, 20 days, and 3 months, respectively, after they had been treated with noncontact Nd:YAG **laser** cyclophotocoagulation. **Results and Conclusions:** (1) energy levels ranging from 4.4 Joules to 5.6 Joules were effective in producing appropriate lesions; (2) direction of the **laser** beam 1 to 1.5 mm behind the limbus caused severe **destructive** lesions of the pars plicata; (3) toward the periphery of the individual treatment sites, the stroma and **ciliary muscle** continued to exhibit severe degeneration, as did the epithelium lining the valleys between the crests of the **ciliary** processes; but in those peripheral zones of individual treatment sites, the epithelium lining the crests of the **ciliary** processes survived and appears normal; (4) bleb-like separations of the **ciliary** epithelium from the adjacent stroma, particularly along the posterior aspect of the **ciliary** body lesions, are a prominent early feature of Nd:YAG cyclophotocoagulation; (5) the pigmented epithelium is more vulnerable to **laser** energy than is the nonpigmented epithelium of the **ciliary** body; (6) the **destruction** of the **ciliary** epithelium is permanent; (7) deeply pigmented persons have more melanocytes in the **ciliary** body **muscle** and stroma than do more lightly pigmented individuals, a circumstance that renders the tissues more vulnerable to **laser** energy; (8) the **ciliary muscle** was always severely damaged; (9) no **scleral** injury was observed other than evanescent, focal areas of edema of the deep **sclera**; and (10) except in the episclera, inflammatory cells were strikingly few in number, a circumstance providing support for the clinical observation that eyes treated with **laser** cyclophotocoagulation exhibit less of an inflammatory response than do those treated with cyclocryotherapy.

9/5/14 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE
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05962849 EMBASE No: 1994374238

Late side effects of Ruthenium 106 therapy for uveal melanomas
SPATKOMPLIKATIONEN BEI DER BRACHYTHERAPIE VON INTRAOKULAREN MELANOMEN MIT
106 RUTHENIUM APPLIKATOREN
Langmann G.; Poier E.; Faulborn J.
Universitäts-Augenklinik, Auenbruggerplatz 4, A-8036 Graz Austria
Spektrum der Augenheilkunde (SPEKTRUM AUGENHEILKD.) (Austria) 1994,
8/6 (276-280)
CODEN: SPAUE ISSN: 0930-4282
DOCUMENT TYPE: Journal; Article
LANGUAGE: GERMAN SUMMARY LANGUAGE: GERMAN; ENGLISH

When effectiveness is evaluated in brachytherapy with Ruthenium 106 special emphasis has to be put on tumor **destruction** and late side effects responsible for the definite functional results. We evaluated the late side effects of 22 uveal melanomas, which had been treated with 106 Ruthenium plaques. The tumor prominences ranged from 3 to 10 mm, the diameter from 4 to 9 disc diameters. In 4 patients the tumor involved the posterior pole, 14 melanomas were located in the midperiphery of the fundus, 4 tumors were **ciliary** body melanomas. The total radiation dose of the apex ranged from 100 to 240 Gy with a corresponding dose to the **sclera** between 540 to 1000 Gy. Because of the short half life of the plaque we have been using different dose rates (1,6-11 Gy/h). In 17/22 eyes adequate regression could be achieved by Ruthenium therapy alone. In one case additional **laser** treatment of the macular part of the melanoma had to be performed, Gamma Knife therapy was necessary in another melanoma with 10 mm tumor prominence 3 recurrences led to enucleation. The mean follow up was 4,8 years ranging from 1 to 7 years. In 2/22 patients opticopathy caused severe visual impairment, in another 2 patients radiation maculopathy and opticopathy was observed. 7/22 developed vasculopathy with neovascularization treated by photocoagulation. In one case of focal radiation maculopathy **laser** treatment could prevent further visual impairment. The following factors are responsible for a higher incidence of late side effects: 1. High dose rate of the plaques in combination with a high radiation dose to the **sclera**. 2. Location of the tumor within a minimum distance of 2 disc diameters to the optic nerve or macula. 3. Tumor location at the **ciliary** body. **Laser** treatment in case of neovascularization and focal radiation maculopathy is the only effective treatment with regard to late side effects. Ischemic maculopathy and radiation opticopathy are responsible for late visual impairment.

9/5/15 (Item 4 from file: 73)
DIALOG(R)File 73:EMBASE
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04904515 EMBASE No: 1992044730

Extracapsular cataract extraction and intraocular lens implantation in the capsular bag during diabetic pars plana vitrectomy
EXTRACTION EXTRACAPSULAIRE DU CRISTALLIN ET IMPLANTATION DANS LE SAC CAPSULAIRE AU COURS DE LA VITRECTOMIE CHEZ LE DIABETIQUE
Pagot V.; Gazagne C.; Galiana A.; Giraud M.A.; Malecaze F.; Mathis A.

Service d'Ophtalmologie, CHU Rangueil, 31054 Toulouse Cedex France
Journal Francais d'Ophtalmologie (J. FR. OPHTALMOL.) (France) 1991,
14/10 (523-528)
CODEN: JFOPD ISSN: 0181-5512
DOCUMENT TYPE: Journal; Article
LANGUAGE: FRENCH SUMMARY LANGUAGE: ENGLISH; FRENCH

Removal of the lens is often performed during pars plana vitrectomy for complications of proliferative diabetic retinopathy, but correction of aphakia often remains unsatisfactory. Some authors have reported posterior chamber intraocular lens implantation during pars plana vitrectomy in diabetic patients who presented with coexisting cataract and vitreoretinal complications from proliferative diabetic retinopathy. Some patients were operated by pars plana lensectomy and vitrectomy followed by posterior chamber intraocular lens implantation in the **ciliary** sulcus, others by extracapsular extraction, posterior chamber intraocular lens implantation in the **ciliary** sulcus, and pars plana vitrectomy. Other authors have described phakoemulsification through the limbus, pars plana vitrectomy and implantation in the capsular bag in one operation in various indications, including complications of proliferative diabetic retinopathy. We inserted a posterior chamber intraocular lens into the capsular bag in 18 eyes of 16 patients with complications of proliferative diabetic retinopathy after extracapsular cataract extraction and pars plana vitrectomy in a single session. A standard extracapsular cataract extraction was performed before pars plana vitrectomy. Sufficient anterior capsule was left in place in order to facilitate implantation in the capsular bag after pars plana vitrectomy. The anterior chamber was filled with sodium hyaluronate in order to maintain anterior chamber depth, corneal clarity, and good mydriasis during the continuation of the procedure. A standard three port pars plana vitrectomy was performed in all cases. After closure of superior sclerotomies, superior corneal incision was partially reopened, an intraocular lens specifically designed for the capsular bag with an optic size of 7 mm was inserted, and the corneal incision was closed with interrupted 10/0 sutures. The infusion cannula was then **removed**, and the third sclerotomy was closed. Visual acuity was improved in 17 eyes and decreased in one eye. After a minimum of 3 months and a maximum of 21 months of follow-up, visual acuity was 0.1 or better in 13 eyes, and 0.5 or better in 4 eyes. Intraoperative complications included peripheral breaks in three patients, treated by external cryotherapy and intraocular gas injection, with **scleral** buckle in one patient, without subsequent retinal detachment; two other eyes had posterior iatrogenic retinal holes, treated by endophotocoagulation and gas injection without complication. Recurrent vitreous cavity hemorrhage with iris neovascularization and ocular hypertonia was observed in one case, successfully treated by vitreous cavity lavage and supplementary endophotocoagulation. Postoperative iritis was observed in four cases, one of which was complicated by a pupillary block treated by **laser** iridotomy. The procedure described herein offers the following advantages: maintenance of anterior chamber depth, corneal clarity, and sufficient mydriasis by the use of sodium hyaluronate; choice to implant or not at the end of the operation, according to the difficulty of the vitreoretinal procedure; integrity of the posterior lens capsule; implantation in the capsular bag.

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04081955 EMBASE No: 1989251001

Noncontact and contact pars plana transscleral neodymium:YAG laser cyclophotocoagulation in postmortem eyes

Schubert H.D.

Retina Service, Wills Eye Hospital, Philadelphia, PA United States
Ophthalmology (OPHTHALMOLOGY) (United States) 1989, 96/10 (1471-1475)

CODEN: OPHTD ISSN: 0161-6420

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Transscleral neodymium:YAG (Nd:YAG) **laser** energy (5 J), noncontact at 20 msec and contact at 0.5 sec exposure time, was applied to enucleated porcine and human eyes 3 mm posterior to the limbus. Coagulative pars plana lesions were noted in all cases. Related to focus and exposure time, noncontact lesions were larger, more homogeneous, and affected primarily the pigment epithelium, whereas contact lesions showed more full-thickness thermal effects, including **sclera**. Because the corona **ciliaris** was unharmed when **laser** applications were made 3 mm from the limbus, this commonly used clinical focus raises questions about cyclo '**destruction**'. Future clinical research will have to show which phenotype of pars plana lesion correlates best with long-term lowering of pressure.

9/5/17 (Item 6 from file: 73)

DIALOG(R)File 73:EMBASE

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03904727 EMBASE No: 1989073719

A technique for precise placement of laser applications in transscleral Nd:YAG cyclophotocoagulation

Fiore P.M.; Latina M.A.

Glaucoma Consultation Service, Massachusetts Eye and Ear Infirmary,
Harvard Medical School, Boston, MA 02114 United States

American Journal of Ophthalmology (AM. J. OPHTHALMOL.) (United States)
1989, 107/3 (292-293)

CODEN: AJOPA ISSN: 0002-9394

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Transscleral neodymium:YAG cyclophotocoagulation has been shown to be effective in lowering intraocular pressure in the treatment of neovascular and other refractory glaucomas. Reduction of aqueous humor production is accomplished by **laser** penetration of the **sclera** with selective thermal **destruction** of the underlying **ciliary** body and processes. We have a simple method for the precise placement of all **laser** applications at a fixed distance from the corneoscleral limbus.

9/5/18 (Item 7 from file: 73)

DIALOG(R)File 73:EMBASE

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02336598 EMBASE No: 1983215602

Carbon dioxide laser trabeculostomy for the treatment of neovascular glaucoma

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10021 United States

Ophthalmology (OPHTHALMOLOGY) (United States) 1983, 90/7 (821-829)

CODEN: OPHTD

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

During the past 24 months, 23 cases of advanced neovascular glaucoma, unresponsive to medical therapy, have been treated by a trabeculostomy procedure using a carbon dioxide **laser**. This procedure entails surgical entry into the anterior chamber from beneath either a conjunctival or **scleral** flap in such a way as to completely cauterize any neovascular tissue in the corneoscleral angle and to permit adequate drainage of the aqueous fluid from the anterior chamber to the periocular space. The average intraocular pressure prior to carbon dioxide **laser** trabeculostomy was 54 mmHg and these pressures were lowered below 18 mmHg in over 70% of the cases followed for longer than six months postlaser therapy. Treatment was considered a failure in 16% of the cases where the intraocular pressure was not lowered substantially. Fourteen percent of the treated eyes sustained a pressure decrease to within the 26-35 mmHg range. Carbon dioxide **laser** trabeculostomy provides a new method of lowering the intraocular pressure in severe cases of neovascular glaucoma without the hazard of intraocular hemorrhage common with other filtration procedures or the **ciliary destruction** present with the cyclocautery operations. The indications, surgical technique, and complications will be discussed.

9/5/19 (Item 1 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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04249829 JICST ACCESSION NUMBER: 99A0598185 FILE SEGMENT: JICST-E
Extraordinary Intraocular Pressure Undulation Long After Trabeculectomy with Mitomycin C:A Case Report.

ISHIDA YUMI (1); TAKAMATSU MICHIIYA (1); NII HIROKI (1); HIROTA ATSUSHI (1);
MISHIMA KO (1)

(1) Hiroshima Univ., Sch. of Med.

Atarashii Ganka(Journal of the Eye), 1999, VOL.16,NO.5, PAGE.703-706,
FIG.5, REF.6

JOURNAL NUMBER: Y0754AAA ISSN NO: 0910-1810 CODEN: ATGAE

UNIVERSAL DECIMAL CLASSIFICATION: 617.7-089

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: We describe a case in which extraordinary postoperative intraocular pressure(IOP) undulation occurred nine months after trabeculectomy with mitomycin C(MMC). The patient, an 85-year-old male with a 9-year history of open-angle glaucoma, underwent trabeculectomy with MMC in the right eye. Nine months later, IOP alternation between hypertension(>50mmHg) and hypotension(<5mmHg) arose, followed by persistent hypotension. Ultrasound biomicroscopy(UBM) disclosed abnormal communication between the anterior chamber and the

suprachoroidal space at around 2 o'clock. **Laser** photocoagulation failed to close this abnormal communication. Cyclodiathermy and lens **removal** with "out-of-the-bag" intraocular lens implantation were performed to firmly reattach the **ciliary** body to the **sclera**. Postoperatively, the abnormal communication disappeared, and IOP recovered to the normal range under topical and oral medication. (author abst.)

9/5/20 (Item 2 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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03371506 JICST ACCESSION NUMBER: 97A0757259 FILE SEGMENT: JICST-E

Contact Transscleral Cyclophotocoagulation for Neovascular Glaucoma.

OKUYAMA MICHIKO (1); OKISAKA SHIGEKUNI (1)

(1) Natl. Def. Med. Coll.

Ganka Shujutsu(Journal of Japanese Society of Ophthalmic Surgeons), 1997,
VOL.10,NO.3, PAGE.445-449, FIG.8, TBL.1, REF.12

JOURNAL NUMBER: X0959AAC ISSN NO: 0914-6806

UNIVERSAL DECIMAL CLASSIFICATION: 617.7-08

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: Twenty-three eyes of 22 patients with neovascular glaucoma were treated with contact transscleral cyclophotocoagulation. Intraocular pressure(IOP), visual acuity and **laser** flare photon counts were measured before and after cyclophotocoagulation. We attempted **destruction** of the pigment epithelial cell layer only for mild photocoagulation, **destruction** of the **ciliary** body **muscle** for moderate photocoagulation, and **destruction** extending to the **sclera** for strong photocoagulation. Eyes with an IOP of 40mmHg or greater were treated with moderate photocoagulation, and eyes with an IOP less than 40mmHg were treated with mild photocoagulation. Ten of 23 eyes achieved IOP control with only one session of photocoagulation. Five eyes of 15 eyes with a pretreatment IOP of 40mmHg or greater experienced on IOP reduction to 20mmHg or less. The same was true for 5 of 8 eyes with a pretreatment IOP of less than 40mmHg. Four eyes with a preoperative IOP of 40mmHg or greater developed a postoperative IOP of below 4mmHg or less. Three eyes with a pretreatment IOP of less than 40mmHg were treated with more than one session of photocoagulation. Of these, 2 eyes achieved IOP control. **Laser** flare photon counts were high from 2 weeks to one month after photocoagulation, but decreased by 3 months. These results suggest that mild photocoagulation may be usefull in neovascular glaucoma where visual function remains, and that additional mild photocoagulation can be performed 2 to 3 months after the initial photocoagulation if necessary. (author abst.)

9/5/21 (Item 3 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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01185915 JICST ACCESSION NUMBER: 91A0206676 FILE SEGMENT: JICST-E

Reduction of intraocular tension by transscleral cyclocoagulation using a neodymium: YAG laser-pathological findings of ciliary bodies in treated

rabbits.

MIYAKE MASAHIRO (1)

(1) St. Marianna Univ. School of Medicine

Sei Marianna Ika Daigaku Zasshi(St. Marianna Medical Journal), 1990,

VOL.18,NO.5, PAGE.867-874, FIG.13, TBL.1, REF.12

JOURNAL NUMBER: Z0605AAW ISSN NO: 0387-2289

UNIVERSAL DECIMAL CLASSIFICATION: 617.7-089

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: Ever since the report of Beckmann, Nd-YAG **laser**

photocoagulation of the pars **sclera** of the **ciliary** body has come to be commonly used in the treatment of absolute glaucoma with eye pain.

Rabbit eyes exposed to an Nd-YAG **laser**, and changes in intraocular pressure were measured in order to determine the extent of

histopathological damage to ciliary tissue. Nd-YAG **laser**

photocoagulation of the pars **sclera** was also performed clinically to treat absolute glaucoma with eye pain, and its depressant effects on

intraocular pressure were studied. The subjects of this study were

normal rabbit eyes(20 eyes of 10 rabbits) and the eyes of human

patients with absolute glaucoma with rubeosis iridis (6 eyes of 6

patients). Light microscopic findings in the rabbit eyes showed

destruction and atrophy of the **ciliary** process, and electron

microscopic findings revealed mitochondrial swelling of the **ciliary**

epithelium together with some cases. The intraocular pressure of the

rabbit eyes was not sufficiently reduced at 0.5J or 1.0J, but was

considerably reduced at 3.0J. The effect sought after was achieved by

treatment at 2.0J. All patients showed a reduction in intraocular

pressure, including one case of temporary reduction, and

neovascularization of the iris diminished, although there were

differences in degree. On the day of surgery and immediately after

surgery intraocular pressure was transiently elevated in 4 out of 6

eyes. It was confirmed that pars **sclera** photocoagulation of the

ciliary body using the Nd-YAG **laser** directly affects the **ciliary**

body, which produces the aqueous humor. This treatment modality seemed

effective in the treatment of absolute glaucoma, but the conditions for

irradiation require further study. (author abst.)

9/5/22 (Item 4 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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00619501 JICST ACCESSION NUMBER: 88A0320665 FILE SEGMENT: JICST-E

The balloon procedure with temporary buckling and non-drainage.

KREISSING INGRID (1)

(1) Tubingen Univ.

Nippon Ganka Kiyo(Folia Ophthalmologica Japonica), 1987, VOL.38,NO.11,

PAGE.1687-1696, FIG.18, TBL.1, REF.9

JOURNAL NUMBER: Z0319BAJ ISSN NO: 0015-5667

UNIVERSAL DECIMAL CLASSIFICATION: 617.7-089 617.7

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Commentary

MEDIA TYPE: Printed Publication

ABSTRACT: The balloon procedure involves treating a detachment with a

temporary buckle in the area of the retinal break without drainage of subretinal fluid. The balloon requires no sutures and is withdrawn after a week. Sustained reattachment depends upon the cryo or **laser** coagulation induced retinal adhesions around the break. The balloon procedure is limited to detachments caused by a single break or a group of breaks not extending more than 6mm at the equator. Under these conditions, and with some experience with non-drainage procedures on the surgeon's part, it can be applied to small or total detachments, old or aphakic detachments, detachments with a break under a **muscle**, to prevent diplopia, as reoperation in a failing buckle operation or as reoperation in cases of diathermized **sclera** with buried implants. As to complications, there are practically none, since the balloon is withdrawn after one week. In 6% of the present cases the retina redetached after balloon **removal** and reattachment was obtained by rebuckling. The final results with the balloon operation after reoperation were: reattachment in 92%, final failure in 8%. The balloon operation is especially suited for treating the elderly or infirm patient; it can be done under local or topical anaesthesia and inflicts minimal trauma on the eye. (author abst.)

9/5/23 (Item 1 from file: 144)

DIALOG(R) File 144:Pascal

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14217150 PASCAL No.: 99-0418058

Eyelid kinematics following blepharoplasty

ABELL K M; COWEN D E; BAKER R S; PORTER J D

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Journal: Ophthalmic plastic and reconstructive surgery, 1999, 15 (4) 236-242

ISSN: 0740-9303 CODEN: OPRSEU Availability: INIST-20647; 354000089273790030

No. of Refs.: 19 ref.

Document Type: P (Serial) ; A (Analytic)

Country of Publication: United States

Language: English

Purpose: This study characterizes the effects of blepharoplasty on blink dynamics in subjects with dermatochalasis. The authors evaluate the hypothesis that orbicularis oculi **removal** and the consequent alterations in blink are potentially harmful consequences of blepharoplasty. Methods: Sixteen patients were studied, before and after **laser** blepharoplasty, by a modified **scleral** search coil technique. Changes in lid position during blinks were recorded before surgery as well as 2 months, and 1 year postoperatively. Off-line analyses assessed blink down-phase amplitude, peak velocity, duration, and main sequence (peak velocity versus amplitude) relationships. Results: Despite **muscle** resection, there was no significant compromise of mean blink down-phase amplitude, peak velocity, or main sequence following blepharoplasty. Mean blink duration was likewise unchanged at either follow-up session from the preoperative state. Our data show that upper lid blepharoplasty does not cause any lasting decrement in lid function in blinking. Conclusions: Blepharoplasty includes resection of

a portion of the orbicularis oculi. It appears unlikely that the purposeful resection of preseptal portion of the orbicularis oculi that accompanies blepharoplasty is responsible for any functional complications such as dry eye.

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9/5/24 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

08486346 95245284 PMID: 7728104

Therapeutic range in transscleral contact cyclophotocoagulation.

Benning H; Pfeiffer N

Universitäts-Augenklinik, Mainz, Germany.

German journal of ophthalmology (GERMANY) Jan 1995, 4 (1) p11-5,
ISSN 0941-2921 Journal Code: 9206441

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Laser contact cyclophotocoagulation (CP) increasingly replaces noncontact CP and cryotherapy as it produces less damage to the conjunctiva and **sclera**. However, the optimal wavelength and protocol for treatment have not yet been firmly established. We used a contact continuous-wave (cw)-Nd:YAG **laser** at 1064 nm (Meridian-Microruptor III) with a bare fiber. A total of 30 freshly enucleated porcine eyes with brown irides were treated within 12 h of enucleation. The intraocular pressure was kept at 35-40 mmHg with an infusion system. The fiber was placed at a 1.5-mm distance from the limbus perpendicularly to the **scleral** surface, and applications were made using power levels ranging from 1.0 to 10.0 W for exposure periods of 0.5, 0.7, 1.0, 1.5, 2.0, 3.0, and 4.0 s. A just-visible whitening of the **ciliary** body was defined as a minimal effect, a complete whitening without loss of **ciliary** structures was defined as a medium effect, and a complete whitening with loss of **ciliary** structures was defined as a maximal effect. Supramaximal "pop" effects could be identified by the typical sound and the **destruction** of the **ciliary** body. Pop effects originate from a sudden overheating, which leads to the formation of small gas bubbles. Using an exposure duration of 0.5 s, no pop effect or maximal effect was observed. For longer exposure periods the therapeutic range decreased continuously (3.7 +/- 2.7 W for 0.5 s, 0.3 +/- 0.3 W for 4.0 s). (ABSTRACT TRUNCATED AT 250 WORDS)

9/5/25 (Item 2 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

06772403 91087693 PMID: 2263156

Trans-scleral application of a semiconductor diode laser.

Peyman G A; Naguib K S; Gaasterland D

LSU Eye Center, Louisiana State University Medical Center School of Medicine, New Orleans 70112.

Lasers in surgery and medicine (UNITED STATES) 1990, 10 (6) p569-75,
ISSN 0196-8092 Journal Code: 8007168

Contract/Grant No.: EY02377; EY; NEI; EY07541; EY; NEI

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

We used a diode **laser** with an output power of 1 W through a fiberoptic light pipe (200 microns diameter) to deliver **laser** energy through the **sclera** of pigmented rabbits. **Ciliary** body **destruction** occurred with energy levels of 300-400 mW and exposure time of 0.5 sec. Retinal photocoagulation was achieved with energy levels of 200-500 mW in 0.5 sec. Histologic examination of acute lesions demonstrated thermal **destruction** of **ciliary** body processes and retina. Chorioretinal scar formation was observed clinically and histologically within 2-3 weeks. Our data indicate that the transscleral diode **laser** may be used for **destruction** of the **ciliary** body processes or peripheral retinal coagulation in pigmented eyes.

9/5/26 (Item 3 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

06732991 91044462 PMID: 2235002

[Indications and results of Sonocare (ultrasound) in the treatment of ocular hypertension. A preliminary study of 395 cases]

Indications et resultats du Sonocare (ultrasons) dans le traitement des hypertonies oculaires. Etude preliminaire sur 395 cas.

Haut J; Colliac J P; Falque L; Renard Y

Centre Hospitalier National d'Ophthalmologie des Quinze-Vingts, Paris.

Ophthalmologie : organe de la Societe francaise d'ophtalmologie (FRANCE)

Mar-Apr 1990, 4 (2) p138-41, ISSN 0989-3105 Journal Code: 8900549

Document type: Journal Article ; English Abstract

Languages: FRENCH

The Sonocare system CST 100 provides high-intensity focused ultrasound to lower the intraocular pressure by three different mechanisms: partial **destruction** of the **ciliary** epithelium, **scleral** thinning allowing transcleral outflow of aqueous humor, and mainly the **ciliary** body separation from the **sclera**. Initially it was used to treat blind eyes with painful elevated intraocular pressure; now the indications are gradually extended to eyes with good vision. This technique takes place between **laser** trabeculoplasty and filtering surgery. The first 395 cases which were treated with ultrasound these two last years in the Quinze-Vingts Hospital, are displayed in this report.

9/5/27 (Item 4 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

05675156 88098689 PMID: 3423436

Transscleral and intravitreal contact Nd:YAG laser application. An experimental study.

Peyman G A; Katoh N; Tawakol M; Khoobei B; Federman J

Department of Ophthalmology, Eye and Ear Infirmary, University of Illinois College of Medicine at Chicago.

Retina (Philadelphia, Pa.) (UNITED STATES) Fall 1987, 7 (3) p190-7, ISSN 0275-004X Journal Code: 8309919

Contract/Grant No.: EY 1792; EY; NEI

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

A contact Nd:YAG **laser** with a sapphire tip (convex surface 2 mm in diameter) was used to coagulate the retina and **ciliary** body through the **sclera**. The **laser** energy was successfully transmitted through the **sclera**, producing retinal coagulation and **destruction** of the **ciliary** body. A 0.2-mm diameter sapphire tip and Nd:YAG **laser** were used to perform transvitreal retinal coagulation, retinotomy, and retinochoroidal incision. Minimal hemorrhage occurred when retinochoroidotomy was done. Probe-tissue adhesion occurred but could easily be separated.

9/5/28 (Item 5 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

04329886 84014880 PMID: 6194492

Carbon dioxide laser trabeculostomy for the treatment of neovascular glaucoma.

L'Esperance F A; Mittl R N; James W A

Ophthalmology (UNITED STATES) Jul 1983, 90 (7) p821-9, ISSN 0161-6420 Journal Code: 7802443

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

During the past 24 months, 23 cases of advanced neovascular glaucoma, unresponsive to medical therapy, have been treated by a trabeculostomy procedure using a carbon dioxide **laser**. This procedure entails surgical entry into the anterior chamber from beneath either a conjunctival or **scleral** flap in such a way as to completely cauterize any neovascular tissue in the corneoscleral angle and to permit adequate drainage of the aqueous in fluid from the anterior chamber to the periocular space. The average intraocular pressure prior to carbon dioxide **laser** trabeculostomy was 54 mmHg and these pressures were lowered below 18 mmHg in over 70% of the cases followed for longer than six months postlaser therapy. Treatment was considered a failure in 16% of the cases where the intraocular pressure was not lowered substantially. Fourteen percent of the treated eyes sustained a pressure decrease to within the 26-35 mmHg range. Carbon dioxide **laser** trabeculostomy provides a new method of lowering the intraocular pressure in severe cases of neovascular glaucoma without the hazard of intraocular hemorrhage common with other filtration procedures or the **ciliary destruction** present with the cyclocautery operations. The indications, surgical technique, and complications will be discussed.

Set	Items	Description
S1	3474	PRESBYOP? OR FARSIGHT? OR FAR()SIGHT?
S2	1652519	LASER? ?
S3	3066432	ABLAT? OR DESTROY? ? OR DESTRUCT? OR ELIMINAT? OR REMOV?
S4	40500	SCLERA?
S5	2384637	CILIAR? OR MUSCL?
S6	64	S2(S)S3(S)S4(S)S5
S7	33	RD (unique items)
S8	28	S7 NOT PY>1999
S9	28	S8 NOT PD>19990503

? show files

File 2:INSPEC 1969-2002/Dec W3
(c) 2002 Institution of Electrical Engineers

File 5:Biosis Previews(R) 1969-2003/Jan W1
(c) 2003 BIOSIS

File 6:NTIS 1964-2003/Jan W1
(c) 2003 NTIS, Intl Cpyrght All Rights Res

File 8:Ei Compendex(R) 1970-2003/Dec W5
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(c) 2002 Inst for Sci Info

File 35:Dissertation Abs Online 1861-2003/Dec
(c) 2003 ProQuest Info&Learning

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(c) 2002 INIST/CNRS

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(c) 2003 Elsevier Science B.V.

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(c) 2002 ECRI-nonprft agncy

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(c) 1998 Inst for Sci Info

File 48:SPORTDiscus 1962-2002/Dec
(c) 2002 Sport Information Resource Centre

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2002 (c) Action Potential

File 162:CAB Health 1983-2002/Nov
(c) 2002 CAB International

File 164:Allied & Complementary Medicine 1984-2002/Dec
(c) 2002 BLHCIS

File 467:ExtraMED(tm) 2000/Dec
(c) 2001 Informania Ltd.

9/3,K/1 (Item 1 from file: 442)
 DIALOG(R)File 442:AMA Journals
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00055739

Histopathologic Results of Retinal Diode Laser Photocoagulation in Rabbit Eyes (Article)

Smiddy, William E., MD; Hernandez, Eleut, LAT
 Archives of Ophthalmology
 1992; 110: 693 (6)

Since diode **laser** energy is delivered in the infrared wavelength range, it shares the advantages of increased transmission through lens opacities, vitreous hemorrhage, and macular xanthophyllic pigments found with krypton (red) **laser** photocoagulation. /16-21/ The efficacy of the diode **laser** for retinal photocoagulation has been demonstrated in several small clinical studies. /6,8,9/ However, its prime advantages may be in providing a clinically useful source of **laser** photocoagulation that uses standard electrical service, avoids cooling system needs, is portable, is less expensive, and is adaptable to multiple delivery modes. MATERIALS AND METHODS One diode **laser** was used for all aspects of this study (Oculite SL, IRIS Medical Instruments Inc, Mountain...

... aspect of the study, a conjunctival incision was made. The retinopexy probe provided for simultaneous **scleral** depression and **laser** delivery. Its position and effect were monitored by indirect ophthalmoscopy, and the aiming beam was...

... globes were enucleated and fixed in 10% formaldehyde solution. The eyes were grossly prepared by **removing** the superior cap of the globe and preparing a horizontal segment. The specimens were embedded...

... The severe burn induced full-thickness retinal cell loss in all five eyes studied. No **scleral** effects were seen with any of these burns. A similar dose-response effect was seen when energy (500 to 800 mW) was applied to depigmented areas that **scleral** effects were noted on histopathologic examination. No **scleral** effects were seen in any eye in which the standard burns were placed or in which the desired burn was attained by increasing burn duration. No **ciliary** vessel or nerve damage was noted in the five specimens in which the retinal burns...

...1990;3:81-87. /10/ Wallow IHL, Sponsel WE, Stevens TS. Clinicopathologic correlation of diode **laser** burns in monkeys. Arch Ophthalmol. 1991;109:648-653. /11/ Benner JD, Huang M, Ishigooka H, et al. A comparison of argon, krypton and diode binocular indirect ophthalmoscopic **laser** photocoagulation in the rabbit. Invest Ophthalmol Vis Sci. 1991;32:2764. /12/ Avery RL, Repka MX, Green WR, D'Anna S, Goldberg MF. A comparative study of diode and argon **laser** indirect photocoagulation of primate retina. Invest Ophthalmol Vis Sci. 1991; 32(suppl):2766. /13/ Jennings T, Fuller T, Vukich JA, et al. Trans- **scleral** retinal photocoagulation with an 810-nm semiconductor diode **laser**. Ophthalmic Surg. 1990;21:492-496. /14/ Peyman GA, Naguib K, Gaasterland DE. Trans- **scleral** application of semiconductor diode **laser**. **Lasers** Surg Med. 1990;10:569-575. /15/ Okamoto S, Takahashi H, Fukado Y, Ozawa T. **Laser** diode application for

trans- **scleral** photocoagulation. **Lasers** Light Ophthalmol. 1990;3:29-37.
photocoagulation with the argon and krypton **lasers** : a comparative study.
Ophthalmic Surg. 1981;12:481-490. /18/ Smiddy WE, Fine SL, Quigley AJ,
Hohman RM, Addicks EM. Comparison of krypton and argon **laser**
photocoagulation in primate retina. Arch Ophthalmol. 1984;102:1086-1092.
/19/ Blankenship GW, Gerke E, Battle JF. Red krypton and blue-green argon
laser diabetic panretinal photocoagulation. Graefes Arch Clin Exp
Ophthalmol. 1989;227:364-368. /20/ L'Esperance FA. The ocular
histopathologic effect of krypton and argon **laser** radiation. Am J
Ophthalmol. 1969;68:263-273. /21/ Blankenship GW. Red krypton and
blue-green argon panretinal **laser** photocoagulation for proliferative
diabetic retinopathy: a laboratory and clinical comparison. Trans Am
Ophthalmol Soc. 1986;84:967-1003. /22/ Macular Photocoagulation Study
Group. Argon **laser** photocoagulation for senile macular degeneration:
results of a randomized trial. Arch Ophthalmol. 1982;100:912-918. /23/
Beetham WP, Aiello LM, Balodinos MC, Konez L. Ruby **laser** photocoagulation
of early diabetic retinopathy: a preliminary /25/ Early Treatment Diabetic
Retinopathy Study Group. Treatment...

... MC, Noyori KS, Swope GH, Koester CJ. The threshold of the retina to
damage by **laser** energy. Arch Ophthalmol. 1966;76:437-442. /27/ Peyman GA,
Katoh N, Tawakol M, Khoobehi B, Federman J. Trans- **scleral** and
intravitreal contact Nd: YAG **laser** application. Retina. 1987;7:190-197.
/28/ Geeraets WJ, Berry ER. Ocular special characteristics as related to
hazards from **lasers** and other light sources. Am J Ophthalmol.
1968;66:15-20. /29/ Birngruber R, Hillenkamp F, Gabel V-P. Theoretical
investigations of **laser** thermal retinal injury. Health Phys.
1985;48:781-796. /30/ Boettner EA, Woler JR. Transmission...

... MW, Puliafito CA, Kliman GH, El-Koumy HA, Reidy WT. Indocyanine green
dye enhanced diode **laser** photocoagulation of From the Bascom Palmer Eye
Institute, Department of Ophthalmology, University of Miami (Fla...

9/3,K/2 (Item 2 from file: 442)
DIALOG(R)File 442:AMA Journals
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00055378

The Prethreaded Pupillary Dilating (Torpedo) Suture for Phakic and Aphakic Eyes (Article)

Freeman, William R., MD; Feldman, Sandy T., MD; Munguia, David; Mendez,
Teotimo; Wiley, Clayton A., MD, PhD
Archives of Ophthalmology
1992; 110: 564 (4)

... through a small hole that was placed in the bevel with a high-powered
argon **laser** . In these cases, the 8-0 nylon suture was threaded through
the hole in the...

... rabbit eyes were used in phakic eyes only. After 2 hours, the dilating
sutures were **removed** . Animals were then inspected under the surgical
microscope and with indirect ophthalmoscopy on the first...sutures were
located through serial sectioning of the globes. Intravascular engorgement
of the iris and **ciliary** body was noted with small fibrin response seen on

histologic studies in the anterior and posterior chambers. Epithelium could be seen incarcerated in the **scleral** wounds. There was no evidence of retinal detachment or vitreous hemorrhage. The exit wound was present 1.5 mm posterior to the pars plicata of the **liliary** body. Patients undergoing pupillary dilation with the torpedo suture were examined on the first day ...

... for only one suture, thus ensuring sharp and resistance-free passages through the limbal and **scleral** tissue and the vitreous base. We had attempted to use a reusable beveled needle with...

... could also be used to suture the haptics of posterior chamber intraocular lenses into the **ciliary** sulcus. Although not experienced in our small series, possible disadvantages include hemorrhage caused by nicking the major arterial circle of **ciliary** body or an iris vessel,

9/3,K/3 (Item 3 from file: 442)
DIALOG(R)File 442:AMA Journals
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00055128

Long-term Complications of the MAI Hydrogel Intrasccleral Buckling Implant (Article)

Marin, Jesus F., MD; Tolentino, Felipe I., MD; Refojo, Miguel F., DSc;
Schepens, Charles L., MD
Archives of Ophthalmology
1992; 110: 86 (3)

... the latest visit, at which his visual acuity was 20/30 OS. Examination revealed a **scleral** buckling implant that was indenting the **sclera** excessively and bulging subconjunctivally. In May 1990, the implant was **removed** surgically and was noted to be swollen, cream-colored, friable, encapsulated, and fused with a calcified **scleral** bed. The capsule was opened carefully, and the implant was **removed** completely in a piecemeal fashion. Portions of the calcified capsule, **scleral** bed, and implant were submitted for histologic examination, which revealed the presence of calcium in...

... revealed an intruding buckle with minimal overlying retinal detachment. This area was "walled off" by **laser** before the implant was removed. During surgery, dehiscence of the **scleral** bed was noted, with spontaneous minimal drainage of subretinal fluid. The MAI implant was **removed** in toto and was found to be moderately swollen, measuring 17.2 x 12.2...

9/3,K/4 (Item 4 from file: 442)
DIALOG(R)File 442:AMA Journals
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00054962

Extracapsular Cataract Extraction in Nepal: 2-Year Outcome (Article)

Ruit, Sanduk, MD; Robin, Alan L., MD; Pokhrel, Ram Prasad, FRCS; Sharma,

Anil, MD; DeFaller, Joseph
Archives of Ophthalmology
1991; 109: 1761 (3)

9/3,K/5 (Item 5 from file: 442)
DIALOG(R)File 442:AMA Journals
(c)2003 Amer Med Assn -FARS/DARS apply. All rts. reserv.

00054960

**Scleral Loop Fixation for Posteriorly Dislocated Intraocular Lenses:
Operative Technique and Long-term Results (Article)**

Maguire, Albert, M., MD; Blumenkranz, Mark, S., MD; Ward, Thomas, G., DO;
Winkelman, Jan, Z., MD
Archives of Ophthalmology
1991; 109: 1754 (5)

... chamber angle fixation has been successfully performed, /2,3/ suture fixation to the iris or **sclera** has been recommended. Previous techniques for suture fixation require multiple transcorneal /1,3/ or transscleral...

... mm posterior to the limbus in the pars plicata. Two sclerotomies to be utilized for **scleral** fixation are placed 180 /degrees/ apart to provide optimal centration of the IOL in the pupillary space. Vitreous is **removed** from the anterior segment using a bimanual technique with endoilluminator and vitrectomy probe. Vitreous gel...

... to a sclerotomy site 180 /degrees/ away. The IOL haptic may be positioned in the **ciliary** sulcus if there is sufficient capsular material for stable fixation. Centration of the IOL is...

...angle fixation without sutures has been described, /2,3/ suture fixation to the iris or **sclera** has gained acceptance. Suture fixation to the iris has raised concerns regarding uveal inflammation /4...incision. Because existing sclerotomy sites are used, the need for blind needle passes through the **ciliary** body region is avoided. One of the principal advantages of this technique is the ability...

... transsclerally sutured IOLs is dependent on intact transscleral sutures. Intraocular lens dislocation has occurred after **removal** of transscleral fixation sutures. /11,12/ For this reason, conjunctival erosion is probably best managed...

9/3,K/6 (Item 6 from file: 442)
DIALOG(R)File 442:AMA Journals
(c)2003 Amer Med Assn -FARS/DARS apply. All rts. reserv.

00054953

**Superior Oblique Myokymia: Quantitative Characteristics of the Eye
Movements in Three Patients (Article)**

Leigh, John R., MD; Tomsak, Robert L., MD, PhD; Seidman, Scott H., MS;
Dell'Osso, Louis F., PhD

Archives of Ophthalmology
1991; 109: 1710 (4)

9/3,K/7 (Item 7 from file: 442)
DIALOG(R)File 442:AMA Journals
(c)2003 Amer Med Assn -FARS/DARS apply. All rts. reserv.

00054675

Energy Levels and Probe Placement in Contact Transcleral Semiconductor Diode Laser Cyclophotocoagulation in Human Cadaver Eyes (Article)

Schuman, Josl S., MD; Noecker, Robert J., MD; Puliafito, Carmen A., MD;
Jacobson, John J., MD; Shepps, Gerald J., MD; Wang, Nan, MD
Archives of Ophthalmology
1991; 109: 1534 (5)

The semiconductor diode **laser** has already been used to perform transpupillary retinal photocoagulation, /8-10/ retinal endophotocoagulation, /11/ peripheral...

... photocoagulation has been performed in rabbits. /15/ Recently, contact transcleral cyclophotocoagulation with the semiconductor diode **laser** successfully lowered intraocular pressure in rabbits. /16/ In the present study, the effects of semiconductor diode **laser** contact transscleral cyclophotocoagulation in human cadaver eyes were examined by gross inspection and by light and scanning electron microscopy to determine optimal clinical treatment parameters. MATERIALS AND METHODS **Laser** Procedure Twenty-two human cadaver eyes with no history of eye disease or surgery were...

... moist container at 4 /degrees/C and then warmed to room temperature prior to the **laser** procedure, which was performed within 24 hours after death. Each eye underwent contact transscleral cyclophotocoagulation with a continuous-wave (CW) semiconductor diode **laser** (818-nm, 400-/micrometer/quartz fiberoptic fiber probe, with a diameter of 0.9 mm...

...the visible limbus (the juncture between the clear or blue-tinged cornea and opaque white **sclera**) in each eye. The probe was positioned perpendicularly to the **sclera** , and the distance from the limbus was determined from the anterior edge of the probe...

... lesions localized to the pars plicata on the middle portion and posterior slope of the **ciliary** processes (Fig 1). Positioning of the probe 0.5 mm posterior to the visible limbus produced lesions centered on the anterior **ciliary** processes. In addition, probe placement at this position produced white circular lesions of the adjacent...

9/3,K/8 (Item 8 from file: 442)
DIALOG(R)File 442:AMA Journals
(c)2003 Amer Med Assn -FARS/DARS apply. All rts. reserv.

00052754

Molteno Implants as a Treatment for Refractory Glaucoma in Black Patients (Article)

Freedman, Jeffrey, MD, PhD; Rubin, Benjamin, MD
Archives of Ophthalmology
1991; 109: 1417 (4)

... single-stage procedure. Before 1985, a total of 16 operations were performed with a lamellar **scleral** flap that was fashioned to cover the silicone tube; since 1985, a total of 66 operations were performed without **scleral** dissection. All the tubes have been covered by glycerine-preserved donor **sclera**. Although some patients received two implants per eye, the results reported apply only to the...

... by the iris occurred in four eyes. The tubes were easily reopened by either YAG **laser** or argon **laser** applications to the offending iris. The development of Tenon's cyst (encapsulated bleb) over the...chambers that occurred in the immediate postoperative period, 89% occurred before our use of the **scleral** patch and the 22-gauge needle entrance site. However, the anterior chambers all re-formed...

9/3,K/9 (Item 9 from file: 442)
DIALOG(R)File 442:AMA Journals
(c)2003 Amer Med Assn -FARS/DARS apply. All rts. reserv.

00049988

Clinicopathologic Correlation of Diode Laser Burns in Monkeys (Article)

Wallow, Ingolf H. L., MD; Stevens, Thomas S., MD
Archives of Ophthalmology
1991; 109: 648 (6)

9/3,K/10 (Item 10 from file: 442)
DIALOG(R)File 442:AMA Journals
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00049828

Endocapsular Hematoma: Description and Treatment of a Unique Form of Postoperative Hemorrhage (Article)

Hagan, John C., III, MD; Gaasterland, Douglas E., MD
Archives of Ophthalmology
1991; 109: 514 (4)

9/3,K/11 (Item 11 from file: 442)
DIALOG(R)File 442:AMA Journals
(c)2003 Amer Med Assn -FARS/DARS apply. All rts. reserv.

00049690

Echographic Diagnosis of Anterior Hyaloidal Fibrovascular Proliferation (

Article)

Han, Dennis P., MD; Lewandowski, Michael, RDMS; Mieler, William F., MD
Archives of Ophthalmology
1991; 109: 842 (5)

9/3,K/12 (Item 12 from file: 442)
DIALOG(R)File 442:AMA Journals
(c)2003 Amer Med Assn -FARS/DARS apply. All rts. reserv.

00049680

Retinal Detachments in Patients With Cytomegalovirus Retinitis (Article)

Jabs, Douglas A., MD; Enger, Cheryl, MS; Haller, Julia, MD; Bustros,
Serge de, MD
Archives of Ophthalmology
1991; 109: 794 (6)

9/3,K/13 (Item 13 from file: 442)
DIALOG(R)File 442:AMA Journals
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00045837

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Posterior Chamber Intraocular Lens Implantation in the Absence of Capsular Support (SURGICAL TECHNIQUES)

STARK, WALTER J.; GOTTSCH, JOHN D.; GOODMAN, DANIEL F.; GOODMAN, GERRI L.
; PRATZER, KIMBERLY
Archives of Ophthalmology
July, 1989; 107: 107-10831989;
LINE COUNT: 00224 WORD COUNT: 03093

9/3,K/14 (Item 1 from file: 444)
DIALOG(R)File 444:New England Journal of Med.
(c) 2003 Mass. Med. Soc. All rts. reserv.

00107863

Copyright 1990 by the Massachusetts Medical Society

Medical Progress: Ophthalmology (Review Article)

Bienfang, Don C.; Kelly, Lisa D.; Nicholson, Don H.; Nussenblatt,
Robert B.
The New England Journal of Medicine
Oct 4, 1990; 323 (14),pp 956-967
LINE COUNT: 00810 WORD COUNT: 11186

TEXT

...not responded to other forms of therapy.

Destruction of the Ciliary Body

Cryotherapy to the **ciliary** body has been used in the past for patients who have severe glaucoma, often those...

...functional vision. Yet the idea of reducing the production of aqueous humor by the controlled **destruction** of part of the **ciliary** body is appealing. The Nd:YAG **laser** can be used through the **sclera** or the pupil, and ultrasonography can be used through the **sclera** to accomplish this (Ref. 56-58...

9/3,K/15 (Item 1 from file: 149)

DIALOG(R)File 149:TGG Health&Wellness DB(SM)

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01740553 SUPPLIER NUMBER: 20153560 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Diode laser contact transscleral cyclophotocoagulation for refractory glaucoma in Asian patients.

Wong, Edmund Y.M.; Chew, Paul T.K.; Chee, Carolyn K.L.; Wong, Jun Shyan
American Journal of Ophthalmology, v124, n6, p797(8)
Dec, 1997

PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0002-9394

LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional

WORD COUNT: 3574 LINE COUNT: 00318

... postoperative cataract formation, sympathetic ophthalmia; or phthisis bulbi were noted in our study population.

DISCUSSION

Ciliary body **ablation** has been used as a method of controlling intraocular pressure in intractable glaucomas for many years.(10,11) Early **ablation** procedures using diathermy and cryopexy were effective in a proportion of patients but were associated...

9/3,K/16 (Item 2 from file: 149)

DIALOG(R)File 149:TGG Health&Wellness DB(SM)

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01474551 SUPPLIER NUMBER: 14925490 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Surgical management of melanocytoma of the ciliary body with extrascleral extension.

Rummelt, Volker; Naumann, Gottfried O.H.; Folberg, Robert; Weingeist, Thomas A.

American Journal of Ophthalmology, v117, n2, p169(8)

Feb 15, 1994

PUBLICATION FORMAT: Magazine/Journal ISSN: 0002-9394 LANGUAGE: English

RECORD TYPE: Fulltext TARGET AUDIENCE: Professional

WORD COUNT: 4357 LINE COUNT: 00373

9/3,K/17 (Item 3 from file: 149)

DIALOG(R)File 149:TGG Health&Wellness DB(SM)

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01426368 SUPPLIER NUMBER: 13275599 (USE FORMAT 7 OR 9 FOR FULL TEXT)
A clinicopathologic correlative study of noncontact transscleral Nd:YAG

cyclophotocoagulation.

Marsh, Peter; Wilson, David J.; Samples, John R.; Morrison, John C.

American Journal of Ophthalmology, v115, n5, p597(6)

May 15,1993

PUBLICATION FORMAT: Magazine/Journal ISSN: 0002-9394 LANGUAGE: English

RECORD TYPE: Fulltext TARGET AUDIENCE: Professional

WORD COUNT: 2495 LINE COUNT: 00268

9/3,K/18 (Item 4 from file: 149)

DIALOG(R)File 149:TGG Health&Wellness DB(SM)

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01373274 SUPPLIER NUMBER: 12920280 (USE FORMAT 7 OR 9 FOR FULL TEXT)

The influence of exposure duration in transscleral Nd:YAG laser

cyclophotocoagulation.

Prum, Bruce E., Jr.; Shields, Steven R.; Simmons, Ruthanne B.; Echelman,

David A.; Shields, M. Bruce

American Journal of Ophthalmology, v114, n5, p560(8)

Nov 15,1992

PUBLICATION FORMAT: Magazine/Journal ISSN: 0002-9394 LANGUAGE: English

RECORD TYPE: Fulltext TARGET AUDIENCE: Professional

WORD COUNT: 4458 LINE COUNT: 00378

9/3,K/19 (Item 5 from file: 149)

DIALOG(R)File 149:TGG Health&Wellness DB(SM)

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01363698 SUPPLIER NUMBER: 12441930 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Current uses of ophthalmic lasers. (Education & Debate)

O'Neill, D.; Gregson, R.; McHugh, D.

British Medical Journal, v304, n6835, p1161(5)

May 2,1992

PUBLICATION FORMAT: Magazine/Journal ISSN: 0959-8146 LANGUAGE: English

RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional

WORD COUNT: 3535 LINE COUNT: 00301

... seen whether the Holmium laser will be as convenient or successful as conventional trabeculectomy.

The **ciliary** body may be **ablated** by **laser** energy to reduce the amount of aqueous produced by the eye. This treatment is usually...

...amenable to other measures, such as rubeotic glaucoma. The continuous mode neodymium-YAG or diode **laser** is used to treat the **ciliary** body transsclerally.[16] (The **sclera** is opaque to visible light but not to the infrared wavelengths produced by the neodymium-YAG and diode **lasers**.)

9/3,K/20 (Item 6 from file: 149)

DIALOG(R)File 149:TGG Health&Wellness DB(SM)

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01357002 SUPPLIER NUMBER: 12185685 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Ultrasound biomicroscopy of anterior segment structures in normal and

glaucomatous eyes.

Pavlin, Charles J.; Harasiewicz, Kasia; Foster, F. Stuart
American Journal of Ophthalmology, v113, n4, p381(9)
April 15, 1992

... determine the cause of various types of glaucoma. This includes the concept of a trabecular- **ciliary** port through which the iris must pass. Narrowing of this port could induce an anatomic...of iris that must traverse it. The ability to define the profile and orientation of **ciliary** processes should be helpful in clarifying mechanisms of glaucoma based on **ciliary** block, or **ciliary** body rotation. The iris-zonule distance may have a bearing on clarifying mechanisms of pigmentary...

...variable, but generally more acute than we previously thought. In several cases, application of an **ablative** tool such as contact **laser** perpendicularly to the **scleral** surface would allow most of the energy to pass under the **ciliary** process. Preoperative assessment of this angle might improve the accuracy of this procedure.

Previous studies...

9/3,K/21 (Item 7 from file: 149)

DIALOG(R)File 149:TGG Health&Wellness DB(SM)
(c) 2003 The Gale Group. All rts. reserv.

01311644 SUPPLIER NUMBER: 11730892 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Causes of failure after initial vitreoretinal surgery for severe proliferative vitreoretinopathy.

Lewis, Hilel; Aaberg, Thomas M.; Abrams, Gary W.
American Journal of Ophthalmology, v111, n1, p8(7)
Jan 15, 1991

PUBLICATION FORMAT: Magazine/Journal ISSN: 0002-9394 LANGUAGE: English

9/3,K/22 (Item 8 from file: 149)

DIALOG(R)File 149:TGG Health&Wellness DB(SM)
(c) 2003 The Gale Group. All rts. reserv.

01310620 SUPPLIER NUMBER: 11673570 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Transscleral Nd:YAG laser cyclophotocoagulation with a contact lens.

Simmons, Ruthanne B.; Shields, M. Bruce; Blasini, Marino; Wilkerson, Mark; Stern, Robert A.
American Journal of Ophthalmology, v112, n6, p671(7)
Dec 15, 1991

9/3,K/23 (Item 9 from file: 149)

DIALOG(R)File 149:TGG Health&Wellness DB(SM)
(c) 2003 The Gale Group. All rts. reserv.

01288687 SUPPLIER NUMBER: 11198088

Surgical management of retinal detachment associated with the acute retinal necrosis syndrome.

McDonald, H. Richard; Lewis, Hilel; Kreiger, Allan E.; Sidikaro, Yossi; Heckenlively, John
British Journal of Ophthalmology, v75, n8, p455(4)
August, 1991

Set	Items	Description
S1	1174	PRESBYOP? OR FARSIGHT? OR FAR()SIGHT?
S2	83560	LASER? ?
S3	238153	ABLAT? OR DESTROY? ? OR DESTRUCT? OR ELIMINAT? OR REMOV?
S4	3205	SCLERA?
S5	82676	CILIAR? OR MUSCL?
S6	30	S2(S)S3(S)S4(S)S5
S7	29	RD (unique items)
S8	23	S7 NOT PY>1999
S9	23	S8 NOT PD>19990503

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